17, HIB.94
(- P
AC.149

FEDERATION OF NIGERIA

Annual Report
of the
Federal Medical Services
1958

NINEPENCE NET

1960

LAGOS: FEDERAL GOVERNMENT PRINTER

22501294998

MINISTRY OF HEALTH
LIBRARY

FEDERAL MEDICAL SERVICES
ANNUAL REPORT
1958

WELLCOME INSTITUTE
LIBRARY
Coll. welMOmec
Call +
No. Ann Rep
WA28
.H N5
N69
1958

MINISTER'S FOREWARD

The significant feature of the year 1958 is that it was a year of active, solid, building construction - aimed at providing the Federal Territory of Lagos with the essential infrastructure of curative institutions which a progressive country not only needs, but demands. Every one of the outstanding capital projects of the Ministry of Health was actually under construction, and two were nearly completed during 1958.

It is clear from this Report, however, that it is no less than imperative to tackle the huge problems which still face us in the field of preventive medicine. Again and again reference is made in this Report to the need for expanded preventive services. This is a matter which is at the forefront of my mind, and which I know is at the forefront of the minds of my advisers. We do not propose to rest on whatever laurels we may be credited with. We all recognise that the neglected preventive field represents a challenge of such immediate urgency that we shall be so busy in dealing with it, that we can give little heed to whatever modest achievements may be recorded in our favour.

Ayo Rosiji,
Minister of Health.

30th November, 1959.

Digitized by the Internet Archive
in 2019 with funding from
Wellcome Library

https://archive.org/details/b31478384

CONTENTS

Chapter		Page	Paragraph
	FOREWARD		
I	INTRODUCTION	1	1-28
II	ADMINISTRATION	6	29-37
	A. Departmental Organisation	6	29
	B. Staff	6	30-33
	C. Legislation	10	34
	D. Finance	10	35-37
III	HOSPITALS, DISPENSARIES AND OTHER UNITS	11	38-77
	A. Existing Medical Facilities	11	38-68
	B. Development of Medical Facilities	13	69-77
IV	PUBLIC HEALTH	15	78-125
	A. Attendances at Hospitals and Dispensaries	15	78-82
	B. Health of Expatriate Population	16	83-90
	C. Health of African Population	17	91-104
	D. Endemo-epidemic Diseases	20	105-125
V	VITAL STATISTICS	24	126-142
	A. General	24	126-135
	B. The Medical Statistics Unit	26	136-142
VI	HYGIENE AND SANITATION	28	143-152
	A. General	28	143-151
	B. Housing and Town Planning	29	152
VII	PORT HEALTH ADMINISTRATION	30	153-170
	A. Lagos Seaport and International Sanitary Airport	30	153-156
	B. Kano, Maiduguri and Calabar International Sanitary Airports	30	157-170
VIII	MATERNITY AND CHILD WELFARE	33	171-177
IX	MENTAL HEALTH	35	178-182
X	DENTAL HEALTH	36	183-186
XI	X-RAY AND RADIOTHERAPY SERVICES	37	187-191
XII	PRISON	38	192-194
XIII	TRAINING OF PERSONNEL	39	195-210

CONTENTS---CONTD.

Chapter		Page	Paragraph
XIV	THE FEDERAL MEDICAL LABORATORY SERVICES	41	218-233
	A. General	41	211
	B. Bacteriological Laboratory	41	212-213
	C. Smallpox Vaccine Laboratory	41	214-215
	D. Yellow Fever Vaccine Laboratory	41	216-221
	E. Pathology Department, Lagos	42	222-226
	F. Forensic Science Laboratory	43	227-228
	G. Summary of the Work of the Federal Laboratory Service	43	229
	H. Federal Medical Library	43	230-233
XV	THE FEDERAL MALARIA SERVICE	44	234-263
	1. Research Activities	44	238-256
	2. Survey Work	46	257-263
XVI	THE FEDERAL TUBERCULOSIS SERVICE	48	264-374
XVII	LEPROSY RESEARCH	50	275-285
	A. General	50	275-277
	B. Chemotherapy	50	278-280
	C. Immunology	51	281
	D. Laboratory	51	282-285
XVIII	NUTRITION RESEARCH	52	286-287
XIX	INTERNATIONAL CONFERENCES	54	288
XX	DISTINGUISHED VISITORS	55	289
XXI	SCIENTIFIC PUBLICATIONS BY MEMBERS OF THE STAFF	57	290
XXII	STATUTORY BOARDS	59	291-312
	A. Medical and Dental Registration	59	291-292
	B. The Nursing Council for Nigeria	59	293-298
	C. The Midwives Board for Nigeria	60	299-304
	D. The Pharmacy Board	61	305-312

TABLES, CHARTS AND APPENDICES

Table Page

I Senior Staff--1958 6-7
II Junior Staff--1958 8
III Nigerianisation--1955-58 9

Chart

Malaria Death Rate and A.A.D. .. 27
Rainfall and Malaria Deaths, 1951-58 29

Appendix

I Legislation--1958 63
II Hospital Beds--1958 65
III Summary of Diseases-Expatriates-1958 66
IV Summary of Diseases-Africans-1958 67
V Return of Diseases and Deaths, 1958 - all races 68

ANNUAL REPORT ON THE MEDICAL SERVICES OF THE FEDERAL TERRITORY OF LAGOS FOR THE YEAR 1958.

CHAPTER I

INTRODUCTION

This report covers the calendar year 1st January to 31st December, 1958.

2. Ministerial Responsibility. Throughout the year the Department, together with the Department of Chemistry, came within the portfolio of the Federal Minister of Health, the Hon. Ayo Rosiji, M.H.R. Many notable achievements have been accomplished; in particular, the acquisition of the old Y.W.C.A. hostel site in Broad Street for the erection of the Lagos Island Maternity Hospital, which will have 200 beds, as well as residential accommodation for some 40 midwives-in-training.

3. The General Health - The general health of the territory was good throughout the year, which was remarkable in that there was no outbreak of epidemic disease. It will be recalled that in 1957, there were outbreaks of two epidemics; smallpox from Janury to April and Asian Influenza during August and September.

4. The figures for crude birth rate and crude death rate for 1958 were 50.4 and 12.7 per thousand population respectively, as compared with the 1957 figures of 49.1 and 14.2. A rising birth rate and a falling death rate result of course, in an increase of population. It is claimed that this increase denotes an improvement in the standard of living and of preventive and curative services provided, but in a confined area as the Federal Territory of Lagos, it does unfortunately signify, inter alia, aggravation of the problem of overcrowding. This problem is certainly very much with us and as the slums in the centre of Lagos island are cleared, new ones are simultaneously created on the mainland. Were there to be an outbreak of a highly infectious disease with high mortality rate, the effect would be calamitous. This Department has always directed attention to this potential source of chaos.

5. There was also a steady, though not spectacular, decline in the infantile mortality rate. The comparative figures for 1957 and 1958 were 80.2 and 79.9 per thousand live births respectively, but the total number of deaths among children was tragically still far too high and even increasing. Out of a total number of 4288 registered deaths, the number of deaths among children of 0-5 years of age, was 2,562, as compared with the 1957 figures of 4,586 and 2,538 respectively. In other words 59.7 per cent of the total deaths in Lagos occurred among children under 5 years of age, as compared with 55 per cent in 1957. The causes of death portrayed the same trend as hitherto, viz: prematurity and marasmus, pneumonia and bronchitis, malaria, dysentery, diarrhoea and malnutrition. Once again these figures emphasise the need to improve our maternal and child health facilities and to provide more hospital beds for children. Last year mention was made of the hope of providing a Specialist Paediatrician service in the children's section of the new Mainland Hospital, but this may not be available till 1962. However, there is now a plan to convert the present Massey Street Maternity Hospital to a 100 bed children's hospital during 1960. Moreover, it has been possible to recruit a Specialist Paediatrician on contract for two tours and I look forward most eagerly to his arrival early in the new year. It is also hoped that closer co-operation between our curative and preventive services and the preventive service provided by the Lagos Town Council, will help to ameliorate the lot of the 0-5 age group children of Lagos, who number over 40,000.

Yet, the progress achieved in our maternity and welfare service, health education and general health was unquestionable and this was again manifested by the Lagos Federal Territory winning the British Commonwealth Shield awarded by the National Baby Welfare Council of the United Kingdom this year. I am proud to record that this was the fourth time that the Health Department of the Lagos Town Council won this shield.

6. In the last two years anxiety was expressed regarding the high incidence of malaria in Lagos, and particularly among children. Unfortunately, the trend was still upwards and the 1958 outpatient and inpatient figures showed a rise of 9.1 per cent and 30.0 per cent respectively over the figures of 1957. Deaths from malaria in 1958 stood at 657 as compared for with 627 in 1957. However, emphasis must again be laid on the peculiar topography of Lagos with its lagoon, low sandspit, swamps, foreshore, creeks and large overcrowded urban area, much of which still has a rural character as regards building, water supply and environmental sanitation - which renders mosquito breeding potential very high and extremely difficult to control. The sanitarian promised by W.H.O. has duly arrived and he is now doing useful work with the Medical Officer of Health. But approach has been made to W.H.O. for the services of a Malariologist for the specific purpose of studying the peculiar problems associated with Lagos and reporting on the effective methods whereby malaria can be completely eradicated from the Federal Territory.

7. Medical Facilities and their Development - Up to date information about the existing medical facilities and details of progress made in expansion under the economic programme are given in Chapter 3. It is hoped to have the Polyclinic open and functioning by April 1959.

8. Lagos has a bed population ratio of 1 to 262 persons, and 1 doctor to 2,000 persons. These ratios are considerably in advance of all the Regions of the Federation, nevertheless, plans to develop further all aspects of our medical, health and training services are being actively pursued.

9. The Mainland General Hospital project has now started to be translated into reality. The senior staff quarters have been completed and work is nearly completed on the foundation of the main hospital buildings and the Nurses Training School. Work has also started on the New Lagos Island Maternity at Campbell Street.

10. The new Chest Clinic continued to be very popular and great credit was due to the Senior Specialist-in-charge for its efficient organisation. The new School of Dental Hygiene has made good progress. Great advancement was made with the building of the Massey Street Polyclinic, which though not completed quite up to schedule, should be ready for use during the first quarter of next year.

11. The structural operations to add a new School of Medical Laboratory Technology to the Pathology Department of the Lagos General Hospital were completed satisfactorily. The school was formally opened by the Hon. Minister on 1st December.

12. The Vaccine Production Laboratories at Yaba have increased their output and maintained the standard of our Yellow Fever vaccine, which has been accorded recognition by W.H.O. as an internationally approved vaccine. Great satisfaction was derived from the successful results obtained from trials of the freeze dried smallpox vaccine. It is hoped that this type of vaccine will soon be produced in sufficient quantities to replace the lanolinated sheep lymph vaccine which is thermolabile and consequently readily loses its potency in the high temperatures prevailing in our climate.

13. Work was started on the Blood Transfusion Service Centre at Yaba. The plans for the Lagos Ambulance Service have been approved and work on it is expected to commence soon.

14. Last year notice was taken of the improvements to waiting and consulting rooms, including air-conditioning effected at General, Creek and Massey Street Hospitals. These improvements have certainly boosted up morale all round, resulting in greater output by doctors and better maintenance of order among patients.

15. Hygiene and Sanitation - Last year the notable improvement derived by the introduction of 500-gallon tankers into which latrine buckets were emptied at collecting depots was recorded. In the absence of a water sewerage system for the entire Federal Territory of Lagos, the general sanitation of the town remains poor for a capital city of such importance. Responsibility for hygiene and environmental sanitation is in the hands of the Health Department of the Lagos Town Council, which is waging an intensive campaign on health education of the public.

16. Dysenteries and Diarrhoeas together constitute a major cause of death as hitherto, particularly among children, and accounted for 10.7% of all deaths in 1958. The comparative figure for 1957 was 10.9%. Any significant reduction in the incidence of acute bowel infections with their high mortality rate, must wait upon the construction of a main sewer.

17. Lagos Medical Board - It will be remembered that in last year's report reference was made to the formation of a Lagos Medical Board, whose terms of reference were as follows:-

(a) to study, recommend and advise upon any policy matter associated with the organisation and administration of Government hospital and dispensary services in Lagos;

(b) to study and give advice on all plans connected with the development of these services;

(c) to recommend and advise upon any policy matter relating to the organisation and administration of the following medical services:-

The Ambulance Service,

The Dental Clinic,

The Blood Transfusion Service, and

The Chest Clinic.

(d) to advise upon the facilities for the training of candidates for the Federal Medical Services, and upon standards of education.

18. The Board met on several occasions and though it is too early to judge, present indications are that the deliberations of the Board will result in the achievement of at least one of its objectives, viz: associating the medical profession and the public generally more closely with the Ministry and Department, in the formulation and execution of policy concerning medical and health matters within the Federal Territory of Lagos.

19. Nigerianisation and Staff Morale - This Department is one of the foremost in its degree of Nigerianisation. The three most senior medical administrative posts are held substantively by Nigerians. Nigerians now hold 73.5 per cent of all senior staff appointments as against 65.7 per cent in 1957, 62.6 per cent in 1956 and 45.8 per cent in 1954. Out of 59 general duty medical officers on permanent establishment, 89.9 per cent are Nigerians, and of the 51 nursing and health sisters and superintendents,

96.1 per cent are Nigerians. If Nigerianisation is the yardstick by which the public measure progress and national effectiveness, the claims of this Department must be rated very high indeed.

20. The Department is aware of its need for training Nigerian officers to fill higher clinical and other specialist posts in as short a period as possible. To this end, it sends overseas and to the University College Hospital, (U.C.H.) at Ibadan, as many medical officers and other staff as can be spared, without seriously impairing the efficiency of the services rendered to the community. This year a total of 38 senior staff (including 20 doctors) were in the United Kingdom on Government study leave or overseas on W.H.O. Fellowships.

21. It is gratifying to record the marked improvement in the filling of vacancies on the authorised junior staff establishment. Last year there were 258 vacancies in an establishment of 1,587, but this year the vacancies are reduced to 153 in an establishment of 1,672, due in the main to a marked improvement in the recruitment of nurses and midwives. The wastage in our nurse training is alarming and only twenty-three qualified during the year out of 55 who were recruited to the Nurses Preliminary Training School in 1955. Unless we have an effective means of stopping this rate of wastage or of counteracting it, e.g., by the training of a lower cadre of nursing auxiliary, it will be impossible to staff our rapidly expanding curative institutions in future.

22. Training - Last year it was recorded that the University College Hospital, Ibadan had been recognised by London University for complete clinical training for the London M.B.,B.S., qualifications. Now the University College Hospital has also been recognised for preliminary training for the Fellow of the Faculty of Anaesthetics and also for the Diploma in Clinical Pathology. This has been a great help to us as one of our Medical Officers has now proceeded to the United Kingdom to complete the course for the Fellow of the Faculty of Anaesthetics after undergoing the preliminary training at the University College Hospital. Another Medical Officer has gone to replace him at Ibadan.

23. The School of Nursing of the University College Hospital at Ibadan, has maintained its annual output of approximately 40 nurses with S.R.N. qualification, and it is planning to increase its intake. There still persists the anomalous position that the General Nursing Council for England and Wales continue their recognition of the training given in the School of Nursing of the University College Hospital, Ibadan, for the purpose of admission to the General Register of Nurses in the United Kingdom, yet the Nursing Council for Nigeria has up till now refused to recognise the Ibadan training for the purpose of admission to the Register of Nurses in Nigeria. Obviously, this ridiculous position must soon be adjusted. We eagerly look forward to a visitation of a representative of the Central Midwives Board for an assessment of the School of Nursing regarding the S.C.M. qualification.

24. Meanwhile the Federal Ministry of Health is stepping up its training of Nigerian Registered Nurses. During the year 150 were admitted into the Preliminary Training School as against 55 in 1955, 61 in 1957 and 86 in 1957.

25. The anticipated transfer of the Yaba Dispensary School to the Nigerian College of Arts, Science and Technology, Ibadan, was not completed and a few students were left to complete their course and others to resit the examinations for the Diploma of Pharmacy. It is hoped to start the course for dispensing assistants next year, subject to the Minister's approval.

26. The Federal Pathological Laboratories are doing excellent work in the training of technologists. Three candidates passed the Intermediate examination of the Institute of Medical Laboratory Technology during the year.

27. There was another big increase in the number of traffic accidents reported to hospitals. There were 587 admissions as compared with 555 in 1957 and 2,275 were treated as out-patients as compared with [illegible] in 1957. Deaths numbered 14, as compared to 7 in 1957.

28. The year 1958 has been notable for the number of medical projects planned and actually executed. By the time all these projects shall have been completed in 1961, we hope the number of hospital beds in the Federal Territory of Lagos will have been nearly doubled. So will the number of out-patients' clinics and doctors actually attending to out-patients. Other services will be correspondingly increased also. More detailed account of the work actually carried out in 1958 is given in ensuing chapters.

CHAPTER II

ADMINISTRATION

A - DEPARTMENTAL ORGANISATION

29. There was no significant change in the administrative arrangements other than the convening of the Lagos Medical Board which was fully described at paragraph 19 of the Annual Report for 1957. Much detailed planning was undertaken during the year in connection with the proposal to integrate the Federal Medical Department with the Federal Ministry of Health during 1959.

B - STAFF

30. Difficulty is still being experienced in filling the posts of pathologist and malariologist, otherwise the staff position during the year was generally satisfactory, the junior staff position reflecting considerable gains over the 1957 figures.

31. Out of an authorised establishment of 275 senior posts 169 were filled by Nigerians, 61 by overseas officers, with 45 vacancies. 43 of the overseas officers were in the permanent and pensionable establishment.

32. The proportion of all senior posts held by Nigerians showed a further advance and now stands at 73.5 per cent (1957 - 65.7 per cent). Recruitment to the junior staff has reduced the vacant posts from 285 in an establishment of 1587 in 1957 to 153 in an establishment of 1,672 in 1958, due in the main to a very marked improvement in the recruitment of nurses and midwives where the established posts filled rose from 570 in 1957 to 693 in 1958.

33. Retirements - The retirement on pension during the year of four senior members of the staff is recorded with regret. They are:-
Dr. L.J. Bruce-Chwatt, O.B.E., Senior Specialist (Malariologist);
Dr. A.L.F. Thomson, Senior Medical Officer; Miss M.I. Phillips, Sister Tutor; and Mr. D. Griffith, Maintenance Superintendent. The following five senior officers left on completion of contract:- Mr. W.G. de Clive Lowe, Dental Surgeon; Miss M. Hooley, Midwifery Tutor; Mr. W.C. Fream, Male Tutor; Mr. D.M. Langbridge, Temporary Scientific Officer; and Miss D.M. Stewart, Radiographer.

TABLE I

SENIOR STAFF - 1958

(Excluding Southern Cameroons)

POSTS	Authorised Establishment 1958-59	Actual Strength as at 31. 12. 58				
		Expatriates	Nigerians	Total	% Nigerians	Vacancies
Medical Officers						
Administration	8	1	5	6	83.3	2
Clinical	76	12	59	71	84.0	5
Health	3	2	1	3	-	-
Pathologists	12	5	1	6	16.7	6
Research & Scientific	4	1	-	1	-	3
Total Medical Officers of all Grades	103	21	66	87	75.9	16

TABLE I (CONTD.)

SENIOR STAFF - 1958

(Excluding Southern Cameroons)

POSTS	Authorised Establishment 1958-59	Actual strength as at 31. 12. 58				
		Expatriates	Nigerians	Total	% Nigerians	Vacancies
Medical Officers						
Dental Officers	8	2	3	5	60.0	3
Matrons, Nursing Sisters, and Nursing Superintendents	60	8	48	56	85.7	4
Nursing Tutors	9	2	2	4	50.0	5
Health Sisters	2	-	2	2	100.0	-
Health Superintendents	4	1	3	4	75.0	-
Laboratory Technologists	20	9	8	17	47.1	3
Pharmaceutical Staff	13	1	10	11	90.9	2
Mosquito Control Officer	1	-	1	1	100.0	-
Dental Technologists and Instructors	7	7	-	7	-	-
Radiographers and Physiotherapists	16	6	9	15	60.0	1
Entomologists	2	2	-	2	-	-
Accounting, Administrative and Secretarial	21	2	12	14	85.7	7
Optometrists	2	-	1	1	50.0	1
Dietician	1	-	-	-	-	1
Maintenance Superintendent	1	-	-	-	-	1
Limb Maker	1	-	1	1	100.0	-
Limb Fitter	1	-	1	1	100.0	-
Catering Supervisor	1	-	1	1	100.0	-
Occupational Therapist	1	-	-	-	-	1
Parasitologist	1	-	1	1	100.0	-
Total	275	61	169	230	73.5	45

TABLE II

JUNIOR STAFF - 1958

(Excluding Southern Cameroons)

POST	Authorised Establishment 1958-59	Actual Strength 31/12/58	Vacancies 31/12/58
Pharmacists and Masters	51	51	-
Assistant Health Superintendents-in-Training Health Inspectors and Health Visitors	11	11	-
Nurses and Midwives (including those in training)	751	693	58
Leper Asylum Attendants	5	2	3
Medical Auxiliaries, Assistant Physiotherapists-in-Training and Physiotherapy Technicians	17	12	5
Assistant Medical Laboratory Technologists-in-Training and Medical Laboratory Technicians	62	40	22
Assistant Radiographers-in-Training and X-ray Technicians	30	24	6
Dental Tecnicians	16	7	9
Library Assistants	3	2	1
Occupational Therapy Instructors and Assistant Occupational Therapy Instructors and Assistant Occupational Therapists-in-Training	8	1	7
Clerical and Medical Statistical Assistants	198	189	9
Assistant Stores Officers-in-Training, Storekeepers and Stores Assistants	58	51	7
Subordinate Staff & Tradesmen	462	436	26
Total	1,672	1,519	153

TABLE III

NIGERIANISATION - 1955-58

(Excluding Southern Cameroons)

POST	31st December, 1955			31 December, 1956			31st December, 1957			31st December, 1958		
	Total Strength	Nigerians	%	Total Strength	Nigerians	%	Total Strength	Nigerians	%	Total Strength	Nigerians	%
Specialists	12	2	16.7	11	4	36.4	16	4	25.0	19	4	21.1
General Duty Medical Officers	41	32	78.0	38	32	84.2	46	41	89.1	59	53	89.9
Medical Officer of Health	2	1	50.0	1	-	-	2	-	-	1	-	-
Health Sisters, Nursing Superintendents and Nursing Sisters	32	24	75.0	29	27	93.1	43	41	95.3	51	49	96.1
Health Superintendents	4	3	75.0	4	3	75.0	3	2	66.6	4	3	75.0
All other Senior Staff	75	32	42.7	96	46	47.9	100	50	50.0	96	60	62.5
Total	166	94	56.6	179	112	62.6	210	138	65.7	230	169	73.5

C - LEGISLATION

34. A list of the legislation affecting the Department which came into force during the year is given at Appendix I.

D - FINANCE

35. The Estimated Expenditure on Federal Medical and Health Services under the Ordinary Nigerian Estimates for the Financial Year 1st April, 1958, to 31st March, 1959, was as follows:-

	£
Personal Emoluments	676,480
Other Charges	592,950
Special Expenditure	14,500
	£1,283,930

Expressed as indices, this total represents:-

(a) 3.57 per cent of the Federal Budget for the year (3.99 per cent in 1957).

(b) £3.16.2d per head of the estimated 1958 mid year population of the Federal Territory of Lagos (£3.16.3d in 1957).

36. It should be observed that these figures do not take into account the monies expended by the Lagos Town Council Public Health Department, of the order of £230,000 per annum.

37. Summary of Expenditure under the Economic programme up to 31st March, 1960, is as follows:-

Project	Revised Estimated Expenditure up to 31.3.59	Estimated Expenditure 1959-60	Estimated Expenditure up to 31.3.60
	£	£	£
Mainland Hospital (1st phase) and Maternity Wing	348,200	849,790	1,197,990
Clinics and Dispensaries:			
(a) Buildings	77,930	20,000	97,930
(b) Equipment	12,000	2,700	14,700
School of Medical Laboratory Technology:			
(a) Buildings	9,200	800	10,000
(b) Equipment	-	-	-
Vaccine Production Programme:			
(a) Buildings	4,110	1,000	5,110
(b) Equipment	10,500	14,000	24,500
Blood Transfusion Service:			
(a) Buildings	3,000	50,000	53,000
(b) Equipment	1,000	2,100	3,100
Lagos Ambulance Service:			
(a) Buildings	3,000	15,000	18,000
(b) Equipment	5,000	5,000	10,000
Improvements to Creek and General Hospitals	24,700	2,800	27,500
Total	£498,640	£963,190	£1,461,830

CHAPTER III

HOSPITALS, DISPENSARIES AND OTHER UNITS

A - EXISTING MEDICAL FACILITIES

38. The total number of hospital beds in the Federal Territory of Lagos was 1,281 and in addition there were 88 cots. This works out at a figure of one bed per 263 of the total estimated mid-year population of 337,000 in the Federal Territory. The distribution is given at Appendix II.

39. General Hospital - In the wards accommodation remained inadequate; however, an increased strength in the supervisory nursing grade led to improved standards. During the year the General Nursing Council for England and Wales approved, for nurses trained in this hospital, a remission of 18 months in the required period of training in the United Kingdon before proceeding to the Council's final S.R.N. examination.

40. Special efforts were made to bring cheer to the patients at Christmas time when the hospital was visited by the Prime Minister of the Federation, the Minister of Health and the Chief Medical Adviser designate.

41. The hospital bears the brunt of providing leave reliefs to smaller units in Lagos which aggravates an already difficult staff position. The weight of work accomplished is indicated by the average daily out-patient attendance of 1,649. During the year the medical and surgical staff were disposed to provide two medical and two surgical firms working to a roster of alternating duty periods.

42. A novel development was the start made on thoracic surgery. The new radiotherapy unit proved very useful in the treatment of malignant disease.

43. Creek Hospital - The posting of additional medical officers permitted a satisfactory 24-hours emergency service, and an afternoon out-patients' clinic which proved attractive to many persons unable to attend during the morning.

44. A total of 1,259 inoculations against poliomyelitis were given at the clinic held especially for this purpose.

45. Proposals are under active consideration to provide additional ward accommodation for children and female patients.

46. During the year work started on an extension of the out-patient buildings to provide an X-ray department, a dispensary store and a patients' waiting verandah. Reroofing of the entire hospital was completed during the year.

47. A general increase over last year in both the admission of patients and the out-patient attendance indicates the future need for expansion.

48. Massey Street Maternity Hospital - From early beginnings in 1926 the obstetrical services provided by this hospital have continued progressively to grow in volume and in the estimate of the community of Lagos. Figures over the past decade have shown a steady rise in the total number of babies born at the hospital from 4,260 in 1949 to 10,476 in 1958 (Total births registered in Lagos for 1957 = 18,409), and a welcome inverse trend in the maternal mortality rate from 14.23 per 1000 live and still births in 1949 to a rate of 5.7 in 1958. The major underlying causes of maternal death in 1958 were anaemia of pregnancy, eclampsia and rupture of the uterus, an indication of the scope for preventive medicine in this field. The greater availability of blood transfusion and the routine use of intravenous thiopentone sodium anaesthesia for obstetrical operations have played important roles in this downward trend in the maternal mortality rate.

49. In all 13,370 patients were admitted (1957 - 11,515), 9,464 women were delivered (1957 - 8,785) and 10,813 live and still births recorded (1957 - 9,123).

50. Recognition of the valuable work done by this unit under very difficult conditions, and the growing public demand for this service, led during the year to the start of construction of a modern 200 bed maternity hospital in Campbell Street, Lagos, which should be completed by 1960.

51. Royal Orthopaedic Hospital, Igbobi - All branches of activity showed an increase over 1957; orthopaedic patients were admitted to the hospital's 226 beds from all parts of Nigeria and also other West African Territories.

52. Surgical operations totalled 2052 (1957 - 1956), physiotherapy treatments 4,724 (1957 - 4,356) in-patients treated 781 (1957 - 640), out-patients treated 6,695 (1957 - 4,390).

53. The limb workshop made more appliances than last year, the limb fitter making periodic tours in the Regions of Nigeria and also to Sierra Leone to carry out measurements and fittings.

54. Yaba and Suru Lere Dispensaries - The growing population in the new housing scheme at Suru Lere provided increased attendance at these clinics, which in addition serve the Ebute Metta and Mushin districts as well as scattered village settlements on the fringe of the Federal Territory of Lagos. The average daily attendance was 547 (1957 - 464), at Yaba and 98 at Suru Lere.

55. The Leprosy clinic is administered from the Yaba Dispensary. Leprosy patients totalled 352 (1957 - 347).

56. During the year two staff nurses replaced nursing attendants in the dressing room, and the staff room was properly partitioned to provide separate male and female sections.

57. Proposals are advanced to provide additional waiting accommodation for patients, for many of whom there is at present no sheltered space.

58. Mental Hospital, Yaba - Further buildings in the Oshodi area have been made available and only await adaptation to accommodate 72 patients whose progress warrants considerable freedom and who are employable on the surrounding grounds that are being developed on market garden lines. A new mental hospital, long overdue, is now a matter of high priority.

59. Tuberculosis Sanatorium - The £10,000 extension to provide better staff and out-patient accommodation, with improved kitchen and laundry facilities was well advanced by the end of the year.

60. 141 patients were admitted during the year (1957 - 166) and 15 patients underwent thoracic surgical treatment. Work at this unit has shown that more than half the cases responding unfavourably to treatment are resistant to streptomycin and INAH. Three quarters of all cases admitted were suffering from bilateral pulmonary tuberculosis.

61. Apapa and Ijora Dispensaries - In addition to duties at the dispensaries, one of the two medical officers attends daily at the Kirikiri Prison, Apapa. The main causes of mortality recorded included gastro-enteritis, malaria, respiratory infections and gonorrhoea. Total attendance at 114,295 showed an increase on that for 1957 (107,962), a trend which has been maintained over recent years, so that accommodation and staff are now hard pressed, and the proposed expansion of the premises is an evident requirement. The buildings were redecorated during the year.

62. Infectious Diseases Hospital - In keeping with the trend at other institutions the total admissions at 2,212 patients exceeded last year's figure of 1,971. This year the majority of patients arose as last year from a heavy outbreak of chickenpox which contributed 1,681 admissions. Measles accounted for 366 patients and whooping cough 39.

63. School Clinic - Daily clinics were held at the Mainland and Island premises. A marked improvement in the general health of school children was noted during the year. New patients totalled 79,649 (1957 - 59,457). Where necessary children were referred to the special departments of the Lagos Institutions. Sir Kofo Abayomi continued, as in past years, to provide specialist ophthalmic services. The main causes of morbidity included, helminths, scabies, dysentery, bronchitis and malaria.

64. Dental Centre - The loss of 3 Nigerian dental officers on resignation and one Commonwealth Officer on completion of contract was not offset by the recruitment of one Nigerian dental officer, so that a reduced volume of work was accomplished.

65. The first one-year preliminary course for dental hygienist-in-training was successfully completed in the Federal School of Dental Hygiene; the second preliminary course will begin early in 1959.

66. The production laboratory turned out dentures at the rate of over 125 per month, and in addition effected many repairs and other more highly skilled work. The modern laboratory equipment for this work is of a high standard.

67. The Federal School of Dental Technology taught 16 students. During the year 10 students completed the 3 years course of training. The shortage of dental technicians in Nigeria has been largely overcome by the products of this school, so that attention can now be turned to more advanced training.

68. Domiciliary Midwifery Service - Much useful work was done by the two centres at Yaba and on Lagos Island. Home deliveries during the year were 883 (1957 - 615). There is an extensive field for expansion in this popular service, which is of necessity limited by the funds and trained staff available.

B - DEVELOPMENT OF MEDICAL FACILITIES

69. Mainland Hospital - The access road and housing for the senior staff who will be required to live close to the hospital were completed. Work has now begun on the foundations for the five hundred bed hospital and it is hoped to complete its construction within three years.

70. New Lagos Maternity Hospital - The site occupied by the old Young Women's Christian Association premises bounded by Broad, Prison and Campbell Streets was acquired and the foundations laid for the 200-bed maternity hospital. It is hoped that the construction of this hospital will be completed during 1959.

71. Polyclinic - Good progress was made with the construction of the polyclinic in Massey Street. Equipment has arrived and arrangements are in hand to open this valuable addition to the out-patient services early in 1959.

72. School of Medical Laboratory Technology - This project, which was completed and officially opened by the Hon. Minister of Health on 1st December, will allow of a greatly enlarged training programme.

73. Vaccine production - Plans for a smallpox laboratory have been completed. It is hoped that it will be possible to commence building in the near future in order to provide for the required expansion in the production of freeze-dried vaccine which is eminently suitable for work in the rural areas.

74. Blood Transfusion Service - Plans for a building to house the new Blood Transfusion Centre, which will include a blood bank, consulting and waiting rooms, and haematological laboratory, have been completed. Construction work began in November and it is hoped that the buildings will be completed well before the end of 1959. Much of the equipment has already arrived. Meanwhile a pilot scheme has been set up at the General Hospital, Lagos.

75. Lagos Ambulance Service - Plans for the Central Lagos Ambulance Station have been completed. It is expected that it will be possible to arrange a contract and start construction in the near future.

76. Improvement to Creek and General Hospitals - Satisfactory progress is being made on a number of minor improvements at these two hospitals.

77. University College Hospital - Work has been completed on all projects. A small reserve fund is maintained to cover any further expenditure which may be required when the construction accounts are finalised.

CHAPTER IV

PUBLIC HEALTH

A - ATTENDANCES AT HOSPITALS AND DISPENSARIES

78. The work done during the year by the various Government Medical Units is summarized below, with comparative figures for 1957:-

	1957	1958	Difference per cent
Out-patients - New Cases			
General Hospital	99,569	150,863	+51.5
Creek Hospital	8,698	10,000	+15.0
Royal Orthopaedic Hospital	2,308	2,203	- 4.5
Yaba Dispensary	73,650	60,494	-17.9
Suru Lere Dispensary	-	10,463	-
Apapa and Ijora Dispensaries	50,449	41,872	-17.0
School Clinic	59,457	79,649	+34.0
Chest Clinic	1,190	1,372	+15.3
Totals	295,321	356,916	+20.9
In-patients - Admissions			
General Hospital	7,634	7,764	+ 1.7
Creek Hospital	938	1,301	+38.7
Royal Orthopaedic Hospital	633	718	+13.4
Yaba Mental Hospital	202	290	+43.6
Yaba Tuberculosis Sanatorium	166*	142	-14.5
Massey Steet Maternity Hospital	11,402	13,245	+16.2
Totals	20,975	23,460	+11.8

*Corrected figure.

79. There has again been a substantial overall increase in the numbers of out-patients treated, amounting to 20.9 per cent, as compared with 19.1 per cent last year. The brunt of this has fallen on the increasingly overworked out-patient department of the General Hospital, which now has to offer what is tantamount to a round-the-clock service in order to keep pace with the demand. The increase at the School Clinic is the result of the introduction of free compulsory primary education last year. The opening of a small sub-dispensary at Suru Lere has afforded a welcome relief to the very busy Yaba Dispensary.

80. In-patient admissions are also up again by a considerable margin, 11.8 per cent as compared with 8.1 per cent the previous year. In absolute numbers, the bulk of this increase was at the Maternity Hospital, which with its 76 beds now has an average turnover of a new patient in each bed every 2.1 days. The proportionately very large increase at the Creek Hospital is, as will be shown below, entirely due to its increasing popularity with the wealthier class of Nigerian. The increase of mental admissions is due to increased accommodation in the shape of a Convalescent Home converted from some disused temporary buildings at Oshodi.

81. Deaths in hospital were distributed as follows:-

	Deaths.	In-patient Case Mortality (per cent)
General Hospital	1,105	14.2
Creek Hospital	39	3.0
Royal Orthopaedic Hospital	13	1.8
Yaba Mental Hospital	51	17.6
Yaba Tuberculosis Sanatorium	32	22.5
Massey Street Maternity Hospital	60	0.45
Totals	1,300	5.5

82. This number represents only thirty per cent of the total of 4,288 deaths registered during the year, an insignificant increase over the 28 per cent recorded in 1957. Thus less than a third of the fatally-ill have the privilege of hospital care in their last illness; the hospitals are working to capacity and can do no more, which means that the other seventy per cent are denied this amenity and must perforce suffer and die in their houses. It is shown elsewhere that the heaviest part of the burden of this mortality is borne by children under five years old. It is true that nearly all the deaths in Lagos are certified by a doctor, which implies that these people have had qualified attention from a private practitioner at least at some time during their last illness; but one wonders how many of these lives could have been saved had they had proper nursing care in hygienic surroundings as well. This is an indication of the continuing inadequacy of our medical services to meet the needs of the population of Lagos, and of the extent of the future development needed - not only to overtake the present deficiencies, which is being attempted, but also to keep pace with the growth of a population which is likely to double itself in the next twenty years.

B - HEALTH OF EXPATRIATE POPULATION

83. Attendances of expatriates at the Creek Hospital, which caters for upper-class patients of all races, were as follows (see also Appendix III):-

	1956	1957	1958
Out-patients - new cases	5,198	4,128	3,288
In-patients - admissions	732	613	714
Deaths	8	8	16
Ante-natal cases	361	373	185
Maternity cases	137	100	110
Medical examinations	287	487	380

Of the above, non-European expatriates numbered only 216 (6.6 per cent) of the out-patients and 79 (11.1 per cent) of the in-patients, with one death.

84. The commonest condition seen amongst out-patients was, as usual, skin infections (395 cases), though the incidence was considerably lower than in 1957 (713 cases). Acute upper respiratory infections (220 cases) were the next commonest, with gastro-enteritis and dysentery (220 cases) third. Infections of the ears (116 cases) showed a sharp decrease from 1957, when 252 cases were recorded. There was a marked increase in psychoneurosis, 71 cases as compared with 30; malaria was also more common, with 88 cases as against 66.

85. Amongst in-patients, the commonest cause for hospitalization was again for child-birth; there were four instrumental deliveries with one maternal death. Infections of the respiratory system were next, with 70 cases, 13 of which were pneumonias. Gastro-enteritis accounted for 43 cases, malaria for 29, and psychoneuroses for 22.

86. There was one death from rabies. Although there was an epizootic of rabies in Lagos at the time, it was thought more likely that the infection was contracted elsewhere. There were three deaths from motor vehicle accidents.

87. Nigerians treated at the Creek Hospital. - There were again very large increases in attendances, particularly marked among wives and families:-

	1956	1957	1958
Out-patients - new cases	2,180	4,570	6,712
In-patients - admissions	177	325	587
Deaths	5	9	23
Ante-natal cases	186	280	316
Maternity cases	37	51	90

88. The disease pattern was much the same as last year, infections of the skin (657 cases), gastro-enteritis (449 cases), coughs and colds (329 cases) and malaria (313 cases) being the commonest conditions seen among out-patients. It is noteworthy that 58 cases of tuberculosis were diagnosed, 48 of them being respiratory. Among in-patients, apart from maternity cases, malaria heads the list with 82 cases, followed by pneumonia (29 cases), gastro-enteritis (28 cases) and genito-urinary disease (23 cases). The commonest causes of death were pneumonia (4), hypertension (3), gastro-enteritis (2), appendicitis (2), and malaria (2).

89. The relatively much higher incidence of malaria as compared with that amongst expatriates, both in out-patients (4.7 per cent and 2.7 per cent) and in-patients (14.0 per cent and 4.1 per cent), is an indication that a much wider use of suppressive chemotherapy should be advised, particularly among Government officials.

90. The figures given above show that there has been a three-fold increase since 1956 of Nigerian patients treated at the Creek Hospital, both out-patients and in-patients. This is a cause for satisfaction, in that rapidly increasing numbers of Nigerians now appreciate, and can afford, the amenities offered by this hospital. But there is another side to the picture. Despite a constantly increasingly expatriate population, which now numbers nearly 9,000 there has been during the same period a decrease of nearly 40 per cent in expatriate out-patient attendances. This decrease is clearly related to the growth in recent years of three prosperous partnerships of expatriate private practitioners, two of which are sufficiently busy to employ assistants, but only one of which has a private nursing home of fifteen beds. The latter fact explains why in-patients admissions at the Creek have not decreased pari passu with out-patients, as this is the only other institution offering in-patient accommodation to expatriates. The Creek is a long-established and well-equipped institution, heavily subsidised by Government, with a moderate scale of charges laid down by law; whereas the overheads of a private practice in Lagos to-day are very large, and the fees, of necessity, correspondingly high.

C - HEALTH OF AFRICAN POPULATION

91. Numbers of patients treated during the year at Government Hospitals and Dispensaries, with comparative figures for last year, are given below. Admissions to Massey Street Maternity Hospital, together with ante-natal and infant welfare attendances, are not included, but are shown separately in Chapter VIII.

	1957			1958		
	Males	Females	Total	Males	Females	Total
Out-patients - new cases	184,651	106,542	291,193	222,629	130,999	353,628
In-patients - admissions	5,702	3,519	9,221	5,423	4,131	9,554
Deaths	647	600	1,247	479	739	1,218
Case Mortality Rate per cent (in-patients only)	11.3	17.1	13.5	8.8	17.9	12.7
Overall Case Mortality per cent.	0.34	0.55	0.41	0.21	0.55	0.34

92. Out-patients cases treated show a large increase of 21.4 per cent, almost equally divided between males and females (20.6 per cent and 23.0 per cent respectively). Male admissions have again gone down by 4.9 per cent, but this is more than counter-balanced by the rise in female admissions (17.4 per cent) giving an overall increase of 3.6 per cent. The case mortality rate for males shows a welcome drop, but that for females shows a slight increase. The marked sex difference in this rate is one usually found in the tropics, and is caused by the tendency of women, because of their household commitments, to delay coming to hospital until it is too late.

93. The following table gives the distribution by sex and age of cases admitted to the General Hospital, and illustrates the remarkable differences between males and females in the different age groups.

Age in years	Males	Females	Total
Under 1	293)	619)	912)
1 - 4	228) 521	903) 1,522	1,131) 2,043
5 - 9	215	300	515
10 - 14	238	136	374
15 - 19	393	176	569
20 - 39	1,927	963	2,890
40 and over	1,013	360	1,373
Total	4,307	3,457	7,764

94. The preponderance of males is, as stated above, that usually seen in Nigerian hospitals. But what is of interest is that in the under-fives nearly three times as many girls were admitted as were boys. The reason for this is not easy to infer. The principal causes for admission in this age-group were of course the three commonest fatal diseases in this country, namely pneumonia, malaria, and dysentery:-

Under-fives	Males	Females	Total	Deaths
Pneumonia	100	336	436	160
Malaria	53	111	164	45
Dysentery	110	206	316	152

95. These diseases are not sexually selective, and yet they show the same sex differences; therefore the difference must lie in the parent's preferential selection. It might be supposed from these figures that the girls received preferential treatment when they got sick, but a knowledge of local custom indicates that this is unlikely. Comparison of the figures for deaths in hospital from these diseases with those given for total deaths in the next chapter indicate that the majority of these cases are treated by private practitioners. It is thus much more likely that if a son falls ill, he is taken to a private doctor, in order to save the long wait in the overcrowded out-patients department of the General Hospital, whereas the daughter, because of her inferior status, is taken to hospital.

96. Diseases treated are given in detail in Appendices IV and V. The commoner conditions met with are discussed in greater detail below:-

97. Malaria - As always, this was the commonest condition diagnosed. There was again a marked increase over last year's figures:-

	1957	1958	Difference per cent
Out-patients	27,094	29,567	+ 9.1
In-patients	506	658	+30.0
Deaths	65	49	-24.6

98. Probably because of the higher admission rate, there was a marked reduction of the mortality; yet the 49 deaths recorded are only 7.5 per cent of the total registered from this cause. The incidence of this preventable disease is discussed more fully in the next section of this report.

99. Diseases of the Respiratory System were as usual a close second, and of these the most important were :-

(a) Bronchitis and other Acute Upper Respiratory Infections:

	1957	1958	Difference per cent
Out-patients	41,339	28,781	- 30.4
In-patients	385	91	- 76.4
Deaths	22	9	- 59.1

This very considerable difference is due to there being no influenza epidemic as there was in 1957; the figures for 1958 are not significantly different from those for 1956.

(b) The Pneumonias:

	1957	1958	Difference per cent
Out-patients	1,702	4,226	+148.3
In-patients	592	753	+ 27.2
Deaths	201	224	+ 11.4

100. The very large increase in out-patients is probably due to a growing awareness on the part of the public that pneumonia is a killer, particularly in children. The small proportion of out-patients who were admitted (17.8 per cent) is an indication, not of a relatively mild type of disease, but rather of insufficient hospital accommodation. Many of those treated as out-patients must have died at home, as only 25.1 per cent of all deaths registered from this disease died in hospital.

101. The Dysenteries and Diarrhoeas:

	1957	1958	Difference per cent
Out-patients	14,803	18,149	+ 22.6
In-patients	536	729	+ 36.0
Deaths	153	179	+ 17.0
In-patients mortality rate (per cent)	30.7	39.2	+ 8.5

The increases here are roughly proportional to the increases in general attendances, and reflect the continuing lack of elementary environmental hygiene in Lagos.

102. These three groups of infections, which are responsible for nearly half the deaths in Lagos, account for 23 per cent of out-patients, 10 per cent of in-patients, and 37 per cent of hospital deaths: but these deaths are only 23 per cent of those occurring in Lagos from these diseases.

103. Traffic Accidents - There were 3,228 traffic accidents reported during the year - about nine a day; these resulted in 46 deaths, 2,275 out-patients attended hospital from this cause, and there were 587 admissions with 14 deaths.

	1957	1958	Difference per cent
Out-patients	723	2,275	+214.7
In-patients	555	587	+ 5.8
Deaths	7	14	+100.0

104. The rapidly-increasing congestion of the roads which is reflected in these figures, was in part aggravated by traffic diversions necessitated by the extensive slum clearance projects that are now in full swing. The new roads being built are however broad, with ample room for cycle tracks, and have pavements for pedestrians; these should in time improve the situation. Nevertheless, it must be realised that the remedy for this increasing and unnecessary burden on our hospital services is largely in the hands of the public themselves.

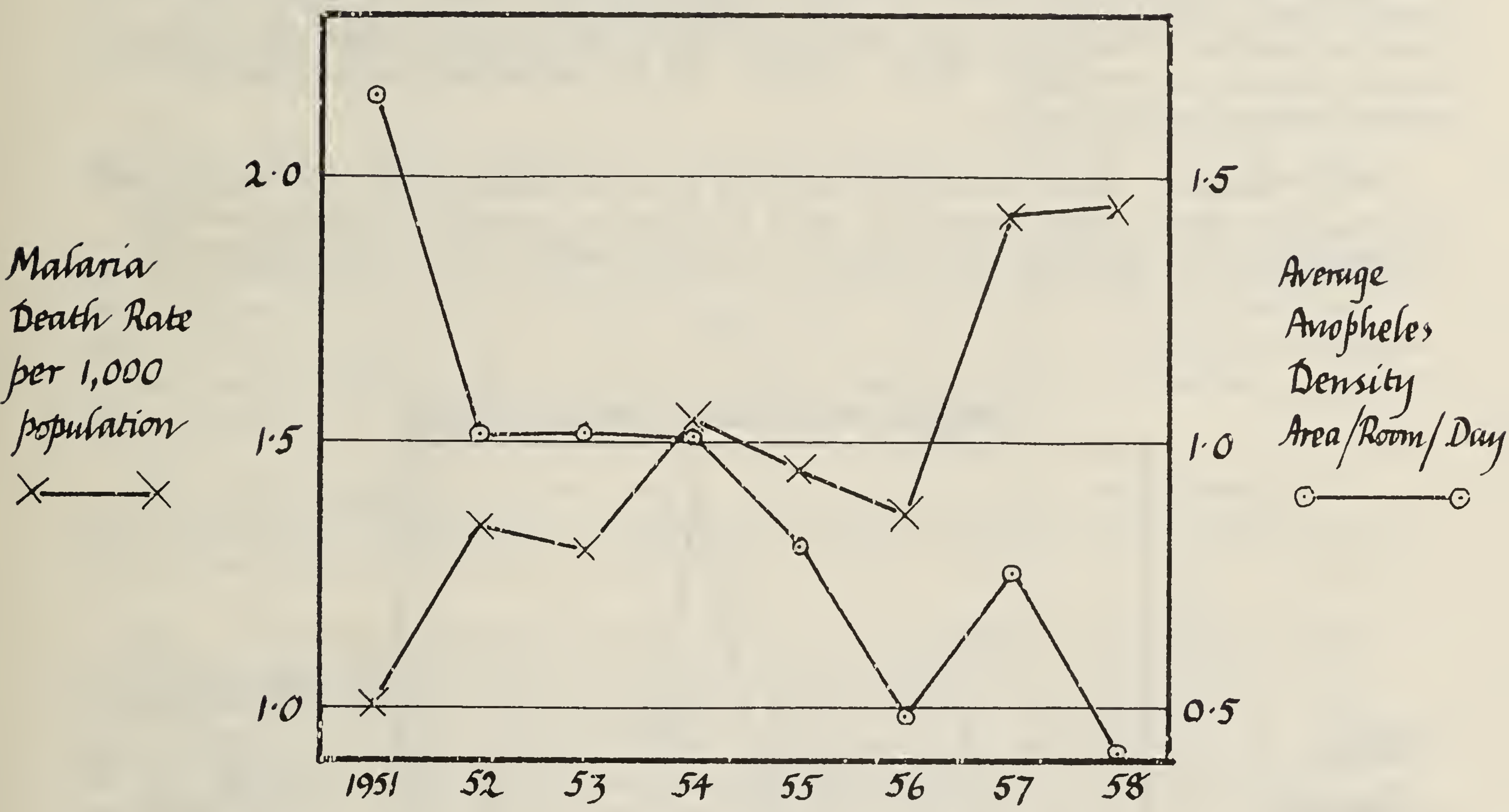
D - ENDEMO - EPIDEMIC DISEASES

105. Malaria - As stated elsewhere in this Report, this preventable disease is the commonest cause of ill-health in Lagos, and the second commonest cause of death, the burden of this mortality falling on children under five. This has long been recognised, and large sums of money, running to many thousands of pounds, are accordingly spent annually on the classical methods of malaria control, which are directed mainly at denying the mosquito vector access to standing water for breeding sites, and where this is not possible, to the destruction of mosquito larvae in ponds, ditches, swamps and other collections of standing water. In addition, a large programme of swamp reclamation by sand filling is being undertaken by the Lagos Executive Development Board.

106. The effectiveness of these control measures is assessed by means of a number of catching stations situated in various parts of the town; these are rooms of houses which are regularly sprayed with a knock-down insecticide, and all mosquitoes killed are collected, identified as to species, and counted. From these data a rate known as the Average Anopheles Density per Area/Room/Day (ADD for short) is calculated, which as its name implies, purports to measure the intensity of infestation by malarial mosquitoes. This rate has been decreasing more or less steadily in recent years, and it was therefore thought that all was well. But nevertheless, it is now noted with concern that the malarial mortality rate has been rising year by year, as the following figures show:-

	Estimated Population (thousands)	Deaths from Malaria	Death Rate per 1,000 population	ADD
1951	255	270	1.059	1.66
1952	266	357	1.342	1.03
1953	277	349	1.296	1.09
1954	288	442	1.535	1.05
1955	300	435	1.450	0.80
1956	312	427	1.369	0.49
1957	324	627	1.935	0.76
1958	337	657	1.950	0.41

107. This anomaly is all the more striking when shown graphically:-



Malaria Death Rate & A.A.D.

108. It thus seems at first sight that we are confronted with the paradox of malaria sine anophelism. However, the sharp rise in malaria deaths in 1957 resulted in an application to the World Health Organisation for the services of a sanitarian to investigate and reorganize control measures; he arrived this year and found that the A.A.D. had become increasingly unreliable over the years, as the siting of new catching stations had not kept pace with the rapid expansion of the town. However, there is no question of the accuracy of the figures for malaria deaths; they were all medically certified. They are, if anything, an understatement, as deaths of children registered as being due to "convulsions" (many of which were certainly due to cerebral malaria) have not been included; neither have deaths from other causes in which malaria was undoubtedly a contributing factor.

109. Control measures are the responsibility of the Lagos Town Council Public Health Department, and as stated above, consist of the bunding and canalizing of creeks and swamps and the routine larviciding of all ditches and drains and collections of stagnant water with Freetown Emulsion or mineral oil. These measures cost about £80,000 every year - about 5/- per head of population per annum.

110. It is obvious that our malaria control measures are ineffective, and are becoming increasingly so. One of the difficulties is that there are no less than four separate organizations for the construction and maintenence of stormwater drainage in Lagos.

The Town Council Public Health Department

The Town Council Town Engineer's Department

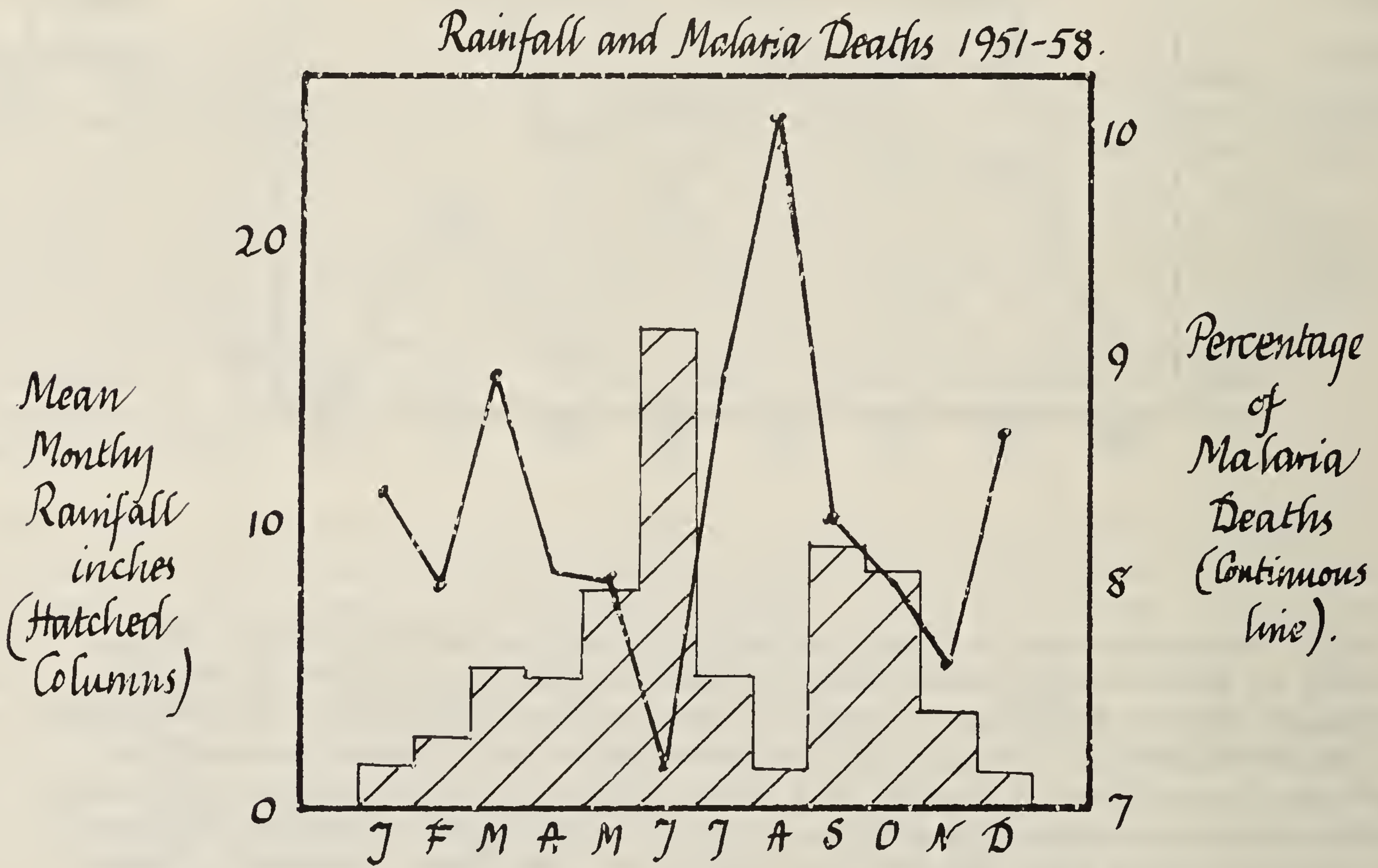
The Federal Public Works Department

The Lagos Executive Development Board.

111. When the proposed, and long awaited, integration of the Department with the Ministry takes place, the Principal Health Officer (Preventive Services Division) should become the Chairman of a Health Committee to co-ordinate the activities of all these bodies in this field.

112. However, in spite of all this, the fact must be faced that it is impossible to eradicate the anopheles mosquito from Lagos, either by the traditional larvicides or by the more modern residual insecticides. The vast peripheral swamps and the slum conditions of the town make this quite impracticable at present. This, however, is no reason for relaxation of effort; every little helps.

113. Malaria, since it is transmitted by mosquitoes which can only breed in standing water, must obviously be a distinctly seasonal disease related to rainfall in a climate such as ours; this is shown in the graph below:-



114. It will be seen that the peak of malarial mortality occurs two months after the rainiest month, June - just the time for a new generation of mosquitoes to be reared, to acquire the infection and to transmit it to non-immune children, and for the infection to incubate in them, make them sick - and kill them. Adults, who are lucky enough to be the survivors of their childhood attacks, are semi-immune, and usually suffer only minor ill-health when they are re-infected. There is also a secondary peak two months after the "small rains" in October. There is nevertheless a period when malaria mortality is at its lowest - May and June. This gives the clue to the use of another weapon in the fight against this disease, namely chemotherapy. A monthly dose of such a drug as Daraprim, or better, Darachlor (a combination of Daraprim and Chloroquine, the two most effective anti-malarials known) to all children under ten years of age during the months April to September would firstly greatly reduce the incidence and the mortality from this disease, and secondly reduce the reservoir from which mosquitoes draw their infection to transmit to others, without affecting the development of natural immunity. The administrative aspects of such a programme are obviously very difficult; the co-operation of Child Welfare Clinics and Primary Schools would have to be enlisted, and there would have to be intensive propaganda in the Press, on the Radio, and, soon on Television.

115. This is a difficult problem; but it can be, and must be solved. But, its solution will result in a diminution of the mortality from malaria, and therefore in an increase in the rate of growth of the population - which will bring its own larger problems in its train.

116. Some Statistical Observations on the Smallpox Epidemic of 1957 in Lagos - A statistical analysis according to age and vaccinal state of cases and deaths arising from the 1957 Smallpox epidemic in Lagos brings home some interesting points in support of the importance and effectiveness of vaccination in the control of Smallpox.

117. In the period of 8 months up to the end of August 1957, there were 572 cases and 71 deaths, an overall mortality rate of 12.4 per cent.

118. The age-group under 1 year (which constitutes about 3.5 per cent of the population) had 8 per cent of the cases, 21 per cent of the deaths, and a case mortality rate of 35.7 per cent - which rose with decreasing age to 66.7 per cent in the cases under 3 months of age. Only one-quarter of the cases under 1 year were recorded as having been vaccinated - many of those within the incubation period of their illness.

119. Parents who fail to comply with the statutory requirement of the Vaccination Ordinance in respect of their children are therefore not only breaking the law, but also exposing those children to grave risk.

120. The age-group 5-15 years (about 20 per cent of the population) shared 31 per cent of the cases, and 8.5 per cent of the deaths, with a case mortality rate of 3.3 per cent - the lowest of any age-group. 37 per cent of the cases were recorded as having been vaccinated. As a result of the epidemic, the school vaccination programme has been vigorously pursued; in the next few years, practically 100 per cent of all children of school age would have been vaccinated, as they would in fact all be in free primary schools and covered by the school vaccination programme.

121. Of the total of 572 cases, only 191, i.e., one-third were recorded as having been vaccinated at any time; 50 of these had been vaccinated over 5 years previously, and, as the next paragraph shows, the majority of the others were actually vaccinated during the epidemic, within the incubation period of their illness.

122. Of the 71 deaths, although 11 were recorded as having been vaccinated, 9 of these were vaccinated within 14 days of the onset of their illness, i.e., within the incubation period, while the remaining 2 had been vaccinated over 20 years before. In fact none of the cases that died had effective vaccination. This clearly demonstrates the importance and effectiveness of vaccination in the control of Smallpox.

123. Smallpox is endemic in the Regions, where some 2000 to 6000 cases are reported annually (Weekly Bulletin of Epidemic Diseases, 1954-58). People move in large numbers between Lagos and the Regions. It is essential therefore that a high level of immunity must be maintained in the Lagos population to prevent the development of an epidemic from cases and contacts who are bound to enter Lagos from time to time. It is estimated that effective vaccination in 80 per cent of the population is required to prevent such an epidemic.

124. While the operation of the Vaccination Ordinance takes care of the vaccination of babies, and the School Vaccination programme covers the children of school age, the continued operation of the Annual Vaccination Campaign organised by the Medical Officer of Health in Lagos is essential for the coverage of the adult population and of immigrants.

125. Similar vaccination programmes embarked upon by the Regions are also being vigorously and relentlessly pursued, in order to reduce drastically, and eventually eliminate their large reservoir of smallpox infection. Until then, the whole vaccination programme in Lagos as outlined above, must continue in operation if an epidemic is to be prevented.

CHAPTER V

VITAL STATISTICS

A - GENERAL

126. Vital events registered in 1958 were as follows:-

	Males	Females	Total
Estimated population (mid - 1958)	185,000	151,000	337,000
Registered Births	8,585	8,391	16,976
Registered Deaths	2,191	2,097	4,288
Deaths under 1 year of age	697	659	1,356
Stillbirths	-	-	512
Maternal Deaths (B40)	-	-	93
Excess of Births over Deaths	6,394	6,294	12,688
Estimated Population Increment at 4 per cent per annum	7,280	5,980	13,260
* "Permissible" registrations of births	662	564	1,226
* "Permissible" registrations of deaths	-	-	-
Non-native Births	109	101	210
Non-native Deaths	20	6	26
Non-native Deaths under 1 year of age	1	3	4
Non-native Stillbirths	-	-	-
Non-native Maternal Deaths	-	1	1

* "Permissible" registrations are those permissible, under the Births, Deaths and Burials Ordinance, to those people living outside Lagos who require certificates but have no registration facilities in their area of residence. They are not included when calculating rates for the Federal Territory.

127. These data give the following rates, with comparative figures for the previous year:-

		1957	1958
Crude Birth Rate (per 1,000 population)		49.1	50.4
Crude Death Rate (per 1,000 population)		14.2	12.7
Infant Mortality Rate (Death under 1 year of age per 1,000 live births) -	Both sexes	80.2	79.9
	Males	85.9	81.2
	Females	73.8	78.5
Stillbirth Rate (per 1,000 live births)		32.0	30.2
Maternal Death Rate (Deaths of women from puerperal cause per 1,000 live births).		3.51	5.48
Masculinity of Births (Male births per 100 Female births)		107.5	102.3
Masculinity of Deaths (Male Deaths per 100 Female deaths)		116.4	104.4

128. The birth rate is up again slightly, and the death rate shows a welcome and significant decrease after its rise last year; the very slight decrease in the Infant Mortality Rate shows that this improvement is confined to the higher age groups. The Infant Mortality Rate has been fairly steady at about 80 for the last five years: this is nevertheless over three timesthe average rate for Western Europe and no improvement is likely while present conditions of environmental hygiene - or rather, the lack of it - obtain.

129. The cause of every death in Lagos is medically certified, either by the doctor in attendance during the fatal illness, or by an autopsy carried out at the request of the Town Council Public Health Department where the deceased had had no doctor; or by a Coroner's Inquest where accident or foul play is suspected. The principal causes of death, as recorded on the

medical certificates, are as follows:-

	1957		1958			
	Number	Per cent of all deaths	Number		Per cent of all deaths	
Bronchitis & Pneumonia (B31, 32).	919	20.9	892	2006	20.8	46.8
Malaria (B 16)	627	13.7	657		15.3	
The Dysenteries and Diarrhoeas (Bb, 36)	489	10.9	457		10.7	
Cardio-vascular disease (B22, 24-29)	188	4.1	170		4.0	
Hypertension (B28,29)	34	0.7	38		0.9	
Cerebro-vascular accidents (B22)	96	2.1	87		2.0	
Tuberculosis - all forms (B1, 2)	108	2.3	118		2.8	
Respiratory only (B1)	80	1.7	94		2.2	
Maternity (B40)	56	1.2	93		2.2	
Malignant neoplasm (B18)	137	3.0	76		1.8	

(The numbers in parentheses are the code numbers of these diseases according to the International Classification).

130. The general pattern of mortality shows no change. The main killers are still pneumonia, malaria and dysentery, and these three account for nearly half the deaths in Lagos. A point of interest is that there has again been a significant increase in the proportion of deaths from malaria; this is discussed in greater detail elsewhere. The increase in maternal deaths has taken place almost entirely in women who did not have their babies in the Massey Street Maternity Hospital. This institution recorded 50 deaths in 1957 and 60 in 1958, so that 33 of the extra 37 deaths must have been domiciliary.

131. Last year's Annual Report showed that no less than 55.2 per cent of all deaths in Lagos were of children under 5 years of age, and stressed the urgent need of a sick childrens' Hospital of at least 300 beds. The following table shows that this tragic situation has deteriorated even further this year, as now no less than 60 per cent of the deaths are in this age group.

Age in years	Males				Females				Both sexes			
Under	Number		Per cent		Number		Per cent		Number		Per cent	
1	697	1312	31.8	59.9	659	1250	31.4	59.6	1356	2562	31.6	59.7
5	615		28.1		591		28.2		1206		28.1	
10	75		3.4		75		3.6		150		3.5	
15	31		1.4		32		1.5		63		1.5	
20	53		2.4		34		1.6		87		2.0	
25	47		2.1		65		3.1		112		2.6	
35	109		5.0		148		7.1		257		6.0	
45	108		5.0		68		3.2		176		4.1	
55	110		5.0		71		3.4		181		4.2	
65	113		5.2		71		3.4		184		4.3	
75	103		4.7		81		3.9		184		4.3	
85 & over	130		5.9		202		9.6		332		7.8	
Totals	1,191		100.0		2,097		100.0		4,288		100.0	

132. Of these childhood deaths, the principal causes were:-

	Under 1 year	1-4 years	Total under 5 years	
Bronchitis & Pneumonia (B31,32)	329	333	662	1.569 = 78.2% of all deaths from these causes.
Malaria (B16)	183	332	515	
Dysentery & Diarrhoea (B6,36)	168	224	392	
Neonatal asphyxia, immaturity, other infections, "convulsions", and other causes (B42 - 45)	500	-	500	

133. Consideration in high places must now be given to the fact that half the deaths in Lagos are due to pneumonia, malaria and dysentery; and to the fact that the brunt of this mortality falls on children under five, four deaths out of five from these diseases being in this age-group.

134. Malaria is preventable, but, as is shown elsewhere, is nevertheless on the increase - in spite of the efforts of the Town Council Public Health Department, which must therefore be intensified. Pneumonia and dysentery, are not directly preventable under present circumstances of environmental hygiene, and their incidence can only be reduced by such long term measures as health education, better housing and better drainage; something is being done about the first two of these, but the Lagos Sewerage Scheme has unfortunately had to be shelved. But all three of these diseases are eminently and rapidly curable - provided that effective treatment is readily available; and this means skilled nursing as well as modern drugs. These diseases can, and usually do, kill a child in 36 hours or less. Grossly congested out-patient clinics, where long waiting for attention is inevitable, and backed only by the absurdly low provision of 45 in-patient cots, are patently inadequate to deal with this situation. Only 673 deaths of young children took place in the General Hospital - about a quarter of the total occurring in Lagos; nearly 2,000 children died for lack of proper treatment. The large number of infant deaths from immaturity and neonatal asphyxia will no doubt be reduced when the new maternity hospital comes into operation, as its increased bed-capacity will allow for a longer lying-in period, and therefore better neonatal care, than is at present possible. But unless a Sick Childrens' Hospital is also provided, more than a quarter of the babies born in it will be dead within five years for lack of adequate medical care.

135. It is however, appropriate to utter a word of warning here. Birth control does not exist in Lagos; death control has advanced to the stage where the natural increase of the population is already about 4 per cent per annum, and will it is hoped, improve still further. This implies that if present trends continue, the population will have doubled within the next twenty years. Lagos is bursting at the seams already, with 337,000 people living on 27.22 square miles - a density of 12,381 per square mile. What is going to happen even a decade hence?

B THE MEDICAL STATISTICS UNIT

136. The Medical Statistician was absent on leave from 10th April to 22nd August. The routine work of the Unit, including the publication of the weekly Bulletin of Epidemic Diseases and the rendition of returns of vital statistics to the United Nations for publication in the Demographic Year Book, was carried on in his absence by his staff.

137. Vital Registration - Some progress has at last been made in this very important subject. Traditionally, and usually by law, the Principal Registrar of Vital Statistics in British territories overseas has always been a senior member of the Medical Department Headquarters staff, as indeed he is to-day in Nigeria. This practice has its origins in the early days

when an embryonic Medical Department had expressed an urgent need for information on the causes and incidences of deaths, and was accordingly made responsible for collecting this information. Strictly speaking, however, one does not register vital statistics as such. One registers vital events as a service to the public in order to provide people with the personal documentation, such as birth, marriage and death certificates, which is necessary in a civilized society; vital statistics are, properly, merely a by-product - albeit a very important one.

138. Hitherto, the statistical aspects of vital registration were of preponderant importance, but now the increasing development of the country and the consequent sophistication of social organization is bringing the certification aspect more and more to the fore. Thus it is plain that it is now an anomaly that the Ministry of Health should remain the authority responsible for vital registration; it is obviously more properly the function of the Ministry of Internal Affairs which should take over this duty, and it is now pleasant to record that this proposal has now been accepted in principle. That Ministry will also be responsible for the conduct of the forthcoming census in 1961, and it is hoped that it may be possible for the organization set up for this purpose to evolve into a Registrar-General's Department, which will be in a position to introduce co-ordinated schemes for vital registration in the Regions.

139. Laboratory Records - Modern methods of keeping records, employing punch-cards, have been designed for the Laboratory Service and for the Blood Transfusion Service. That for the latter appears to offer such advantages that it is proposed to publish a description of it in a professional journal.

140. Medical Records - Arrangements have been made to send a Nigerian clerical officer to Bristol University for training as a Medical Records Officer. It is hoped that it will be possible to send two or three more each year for similar training, until every curative unit in Lagos has at least one qualified Medical Records Officer in charge of its records.

141. Nigerianization - Welcome news has been received that a Nigerian Medical Officer, at present pursuing post-graduate studies in the United Kingdom, proposed to specialize in Medical Statistics. He is expected to join the Unit early in 1959.

142. Research - An extensive programme of research into the treatment of tuberculosis has been undertaken by the West African Council for Medical Research Tuberculosis Unit in Ghana. This Unit has undertaken the statistical analysis of this investigation, and recording of data on punch-cards is now proceeding.

CHAPTER VI

HYGIENE AND SANITATION

A - GENERAL

143. Water supplies - Work in hand, which it is expected will be completed during 1959, included:

(a) a new pump house at Iju;
(b) the laying of a 27 inches pumping main from Iju to Shaga;
(c) the design of a new pump house at Ogun river and the design and preparation of documents for sedimentation tanks and gravity filters;
(d) the design, and preparation of the indents for, the trunk mains from Yaba to Carter Bridge and from Carter Bridge to Onikan;
(e) the installation of two one-million gallons high level storage tanks.

144. Sewage and refuse disposal - Plans are available for the provision in phases of a modern waterborne sewerage system for Lagos. Plans with the same object in view were drawn up 30 years ago when they were shelved due to the cost, with the present unhappy result of a deplorably insanitary capital city. It is most important, particularly in view of the splendid opportunity offered by the current slum clearance and rebuilding scheme for Lagos, that postponement of this essential public service shall not occur a second time. Indeed, the year 1960, which marks the achievement of Independence by the Federation of Nigeria, would be a most appropriate occasion on which to begin work to provide the Federal Capital with modern sanitation. No significant change was effected in the system for domestic and street sanitation.

145. Malaria control - The development of the Lagos area by sand-filling of swamp land prior to construction of roadways or buildings provided a number of problems in mosquito control during the year. The new causeway to Apapa interfered with the natural tidal flow of water in a portion of the Iddo Creek which was rendered stagnant.

146. In other places sand-filling interfered with malarial drains and bunds, so that constant vigilance was necessary and modifications in the control scheme had to be effected. Plans to sand-fill the low-lying Obalende areas necessitated moving the nursery for casuarina trees, used in swamp reclamation, to a new site at Ikoyi Park.

147. With the arrival of the W.H.O. Sanitarian the distribution of adult mosquito capture stations was reviewed and reorganised with the elimination of some stations. These stations have shown an encouraging fall in the mosquito population over the past 4 years, and particularly during 1958.

148. In addition to 14 canoes a launch is now available for anti-mosquito work around the foreshores of the harbour and on swamp land accessible only by water.

149. During the year 296,713 water collections were inspected (1957 - 260,554) of which 1,466 were breeding mosquitoes. All water surfaces were regularly treated with larvicide. 2,718 gallons of Freetown Emulsion and 452 gallons of gas oil were used.

150. Inspection of 108,463 compounds gave an Aedes Index of 0.2 (1957 0.4). 1,225 wells were stocked with larvicidal fish, 201,768 crab holes were treated with gammexane pellets, and 81 water bearing plants were uprooted. 547 tree holes received attention.

151. Clearance of grass, residual spraying of dwelling houses, afforestation of low lands, prosecution under the Public Health and Destruction of Mosquitoes Ordinances and other means also contributed to the general task of advance towards the still distant goal of malaria eradication.

B - HOUSING AND TOWN PLANNING

152. (a) Central Lagos - Slum clearance in the first three sub-areas has been completed and work has begun on the fourth and part of the fifth sub-areas. Areas cleared during the year comprised some twelve acres. Rebuilding has commenced in Broad Street, Martins Street, and Balogun Square.

(b) Suru Lere - The Lagos housing scheme has been extended under a scheme, on which work has begun, to provide fifty six three-roomed, two storey flats for low income group persons displaced by Government acquisition of land and property. Plans are prepared, and work will begin early in January, 1959, to provide main surface water drainage within the limits of the Suru Lere development area.

(c) South East Ikoyi - Remedial sand filling continued during the year with a view to starting the second stage site development work next year.

(d) South West Ikoyi - It is anticipated that work on reclamation and surface drainage which began in April will be completed during next year. A contract for the erection of a new Onikan Bridge, linking Victoria and Lagos Islands, has been let and the bridge should be completed early in 1960. Meanwhile a Bailey Bridge is under construction and will be opened to the public in January 1959.

(e) Victoria Island - Work of reclamation has been completed to develop an area of forty acres for an hotel, together with the construction of a dual carriageway road from Onikan bridge to Victoria Beach which should be completed by mid-1960.

(f) Investigations - The possibility was examined of extracting sufficient sand from Five Cowrie Creek for the reclamation of additional areas of land required for development, also the development of nearly four hundred acres of swamp in the Ijora area.

CHAPTER VII

PORT HEALTH ADMINISTRATION

A - LAGOS SEAPORT AND INTERNATIONAL SANITARY AIRPORT

153. Quarantinable Disease - Three cases of smallpox were found amongst the crews of ships calling at Lagos, one each in March, May and June. In each case routine precautions were taken and no secondary cases arose in Nigeria. All three were in possession of valid international certificates of vaccination against smallpox issued in Liberia. There were no other cases of quarantinable disease at either Lagos Seaport or Airport.

154. Office accommodation, Lagos Island-The small and old premises at Customs Quay, Lagos are now inadequate for the work undertaken there, particulary with regard to vaccination against yellow fever, the Port Health Office being the designated Centre for Lagos. In close cooperation with the Nigerian Ports Authority plans were drawn during the year for more suitable offices, to be constructed at the South end of the recent extension of Customs Quay, where the site will provide easier access for the public, and a better view of the harbour and the movement of shipping than is available from the present office at the North end of Customs Quay.

155. Health procedures - Work of general sanitation, plague control, mosquito control and the medical examination of ships, aircraft and passengers on international voyage continued without significant change as reported last year.

156. Statistical information:-

	1957	1958
Ships arriving	1519	1989
Ships departing	1500	1956
Deck passengers arriving	7355	6081
Deck passengers departing	4860	4269
Ships fumigated	8	10
Deratting exemption Certificates issued	12	19
Canoes inspected	1484	2284
Other small craft inspected ...	1531	1157
Aircraft arriving on international flight	1426	1397
Aircraft departing on international flight	1405	1407
Passengers arriving on international flight	15,999	18,234
Passengers departing on international flight	15,086	15,448

B - KANO, MAIDUGURI AND CALABAR INTERNATIONAL SANITARY AIRPORTS

157. No quarantinable disease was recorded at these airports.

1 - KANO

158. Airport perimeter - Consequent upon the recent opening of the new terminal buildings the airport perimeter was reviewed and redrawn to enclose the new buildings and omit those parts of the previously enclosed area devoid of terminal buildings and not used for the parking of aircraft.

159. Medical and Health procedures - No significant change was made in the arrangements recorded last year whereby the Port Health Officer has charge of the medical clinic serving all the airport staff, and the health office responsible for general sanitation of the airport area and the application of the International Sanitary Regulations and Quarantine Regulations of Nigeria in respect of aircraft and passengers arriving or departing upon an international journey, and staff employed at the airport.

160. To improve the system of refuse disposal an order has been placed for 2-Ton Tipper type refuse vehicle.

161. To overcome flooding of drains serving the new terminal buildings, a separate outflow was made for the waste water, and to protect soakaway pits grease traps were fitted to all kitchen drains.

162. Statistical information:-

Pilgrims departing for Mecca - 1,473
Other passengers departing - 16,495
Pilgrims arriving from Mecca (including 627 repatriated pilgrims) - 2,100
Other passengers arriving - 12,716
Aircraft on international flight calling at Kano - 2,922

II-CALABAR

163. Sanitary and Health control measures carried out on an agency basis by the Government of the Eastern Region remained essentially as recorded last year.

164. A part-time nurse is detailed for duty on the occasion of any international flight. As will be seen from the data given below the international traffic at this airport is very restricted. On each occasion the aircraft on international flight was disinsected.

165. Steps were taken during the year to plan for a separate airport health office, the work up to date having been undertaken in a room within the Customs and Immigration block; and for the conversion of bucket latrines to water closets.

166. Statistical information:-

Aircraft arriving and departing on an international journey - 7
Aircraft on internal flight (includes Shell Company - 73, Private - 23) - 814
Passengers arriving on international flight - 1
Passengers departing on international flight - 16
Passengers arriving on internal flight - 2,422
Passengers departing on internal flight - 2,464

III MAIDUGURI

167. Sanitary and Health control measures carried out on an agency basis by the Government of the Northern Region remained essentially as recorded last year.

168. International flights at this airport are related to the pilgrim traffic, apart from which nearly all traffic is internal.

169. Health Staff comprises a senior health inspector, 3 mosquito control officers and 6 general labour.

170. Statistical information:-

Total number of passengers arriving - 858
Passengers arriving on an international journey - 278
Total number of passengers departing - 684

Passengers departing on an international journey	-	66
Total aircraft arriving and departing	-	170
Aircraft arriving and departing on an international flight	-	28

CHAPTER VIII

MATERNITY AND CHILD WELFARE

171. The Obstetric Service - The construction of a modern 200 bed maternity hospital was begun in Campbell Street, Lagos, during the year, this will be additional to the maternity annexe of 156 beds included in the general plan of the Mainland Hospital. The need for this additional accommodation on Lagos Island has been evident for a number of years, and will prove of great help to a service with a rapidly expanding area of influence and popularity within the community. The new hospital will release the Massey Street Maternity Hospital for remodelling to serve as a children's hospital, another project much in demand.

172. During the year a further increase in the volume of obstetrical work was recorded, and it is an index of the constant vigilance and industry of the staff that the very considerable number of 13,245 patients were provided for (1957 - 11,402) in this 76 bed Unit.

173. Detailed figures of 1957-58 are as follows:-

	1957	1958
Adult patients admitted	11,402	13,245
Patients delivered in hospital	8,785	9,464
Patients admitted after delivery	113	125
Abortions	729	943
Patients transferred	14	21
Maternal deaths	50	60
Maternal mortality rate (death per 1,000 live and stillbirths)	5.4	5.7
Infants born in hospital	9,124	10,349
Total live births	8,679	9,885
Infants born before admission	125	127
Stillbirths	444	464
Stillbirth rate (per 1,000 live and stillbirths)	48.1	44.3
Neo-natal deaths	228	311
Neo-natal death rate (per 1,000 live births)	26.2	31.5
Total live and stillbirths	9,249	10,476

174. The Domiciliary Midwifery Services - Health education, largely carried out by the Lagos Council domiciliary midwives, has over the past three years firmly established a public demand for this service. This young service has great future potential, and there is an immediate need for more staff. Altogether 883 domicialiary births were supervised during the year. It is known that a further 7,000 received no medical supervision.

175. Ante-natal and Child Welfare Clinics - A novel feature of the Lagos Town Council clinics has been the establishment of a Father's Club, the outcome of complaints from expectant mothers that their husbands were reluctant to provide for the improved diet advised at the clinics. Considerable success has attended this venture which has expanded into group discussion, lecture - demonstrations, and cinema shows.

176. Role Playing introduced by the Federal Social Welfare Department, to which due appreciation is accorded, is a feature of the health education at these clinics. The main method used being to show different ways of coping with maternal and child health problem situations and inviting the group to state, and give reasons for, the way they would adopt.

177. Figures for the Government and the Lagos Town Council clinics show:-

	1957	1958
Government Ante-natal clinic - attendance	76,687	86,314
L.T.C. Ante-natal clinic - attendance	5,827	7,844

	1957	1958
Child Welfare Clinics - cases treated	12,051	16,360
Child Welfare Clinics - attendances	29,269	39,673
Home Visits by Health Visitors	37,753	42,629
Home Deliveries	615	883
Home Visits by Midwives	-	5,786

CHAPTER IX

MENTAL HEALTH

178. A specialist psychiatrist arrived in January and during the year put in much hard work coping with a hospital population that rose steadily in spite of a marked step up in the rate of discharge. This officer assisted in a draft revision of mental health legislation.

179. By dint of improvisation, and including the additional accommodation taken over in the Oshodi area, bed accommodation was made available for 423 patients by the end of the year.

180. Overcrowding in the Yaba Hospital is a serious defect in the Medical Service, and it is sincerely to be hoped that it will be found possible in the early future to correct this fault by the provision of a modern building to accommodate 350 patients.

181. Admissions during the year were 290, patients discharged 173 and deceased 51. There remained 417 patients in hospital at the end of the year (1957 - 345).

182. Towards the end of the year it was known that the specialist psychiatrist would not be renewing his contract. There is no doubt that this unfortunate state of affairs is attributable to the problem of adequate provision for mentally deranged persons remaining the "Cinderella" of the service for far too many years. Only better conditions of hospitalisation for the patients, and as a result more tolerable conditions of work for the staff, will effect the radical changes necessary to attract the required medical staff needed to level up the standard of this branch of the Medical Services generally.

CHAPTER X

DENTAL HEALTH

183. The loss of 3 Nigerian dental officers on resignation and 1 Commonwealth officer on completion of contract was not offset by the recruitment of one Nigerian Dental Officer, and the volume of treatment accomplished although generally on a reduced scale indicates marked activity on the part of the staff available.

184. Thus:-

			1957	1958
Total patients	...	...	11,415	6,861
Attendances	...	...	16,489	10,002
Fillings	...	...	1,858	2,534
Extractions	...	...	4,367	3,759
Other treatments	...	...	2,642	2,549
Dentures and repairs	...	...	1,449	2,067

185. Students in the Federal School of Dental Hygiene, which opened on 6th January, began practical work on patients on 6th June and by the end of the year 500 patients had received treatment.

186. The continued growth of Lagos has been taken into account in proposals under consideration to expand the dental service in the 1962-67 Economic programme.

CHAPTER XI

X-RAY AND RADIOTHERAPY SERVICES

187. One superintendent radiographer retired, three radiographers left and four were recruited to the department.

188. There was a marked increase in special diagnostic investigations and a fall off in fracture cases, most of which now go direct to the Royal Orthopaedic Hospital at Igbobi. As a result the work of the Radiologist and the Xray Department generally was much increased, and at times a considerable waiting list built up. Creation of a new cadre of receptionist released technicians and helped to offset temporary shortages that occurred at times due to a rapid turn over of technical staff.

189. A rapid film changer, for examinations such as cerebral angiography, was built by the Yaba Trade Centre and gave promising results in what is still an experimental phase. Protective screens with hard glass windows were taken into use.

190. The first patient received treatment with the newly installed medium therapy X-ray apparatus on 5th May. Three weeks later a falling tree put the building out work for two months. Subsequently treatment proceeded smoothly, 816 treatments in all were given during the year.

191. Xray examinations were recorded as follows:-

	1956	1957	1958
Ordinary examinations	10,296	12,672	11,549
Special examinations	751	793	1,069
Totals	11,047	13,465	12,618

CHAPTER XII

PRISON

192. The total number of prisoners recorded by the Federal Prisons Department for 1958 throughout the Federation of Nigeria, including the British Southern Cameroons, was 49,709, of which 2,696 were placed on the sick list, accounting for an average daily sick rate of 154. 76 prisoners died during the year from causes scattered over a wide range of conditions, of which diseases of the cardio-vascular system were recorded most frequently.

193. The following table summaries the position:-

Regions	Total No. of prisoners	Daily Average in prison	Total No. of Sick list	Total No. of days on sick list	Average daily sick	Deaths
Western Region	10,974	1,967.11	542	6,845	19.75	11
Northern Region	5,880	1,761.94	244	2,547	14.75	10
Eastern Region	23,982	6,106.98	1,339	11,815	77.80	45
Lagos Federal Capital	6,126	1,327.36	176	7,622	36.47	6
Southern Cameroons	2,747	806.10	295	2,431	5.44	4
Total	49,709	11,969.49	2,696	31,260	154.21	76

194. The overcrowding of prisons in the Federal Territory of Lagos improved with the opening of the new Kirikiri prison at Apapa, which was attended daily by the Medical Officer attached to the Apapa dispensary.

CHAPTER XIII

TRAINING OF PERSONNEL

195. Study Leave - 18 Federal Medical Officers were granted study leave during the year to pursue courses which included F.R.C.S. (three), M.R.C.O.G. (one), D.P.H. (three), D.C.P. (two), D.P.M., D.O., D.M.R.D., D.T.M. and H., T.D.D., Physical Medicine and Rehabilitation (one each).

196. Of these one returned with the F.R.C.S. (England) and one with the D.O., the others continued their studies into 1959.

197. Nursing Sisters - During the course of the year 5 Nursing Sisters pursued study courses in the United Kingdom, as follows: one the Administrative course; two the Sister Tutor's courses; and two the Midwifery Tutor's course.

198. Nurses and Midwives - The four new class rooms at the Preliminary Training School, Lagos, were wired for electricity, a transmitter system was installed and construction of the practical demonstration room was completed. The study day system of teaching for nurses-in-training at the General Hospital continued and 110 nurses attended the School. In all, 86 students out of a total of 102 successfully completed the preliminary six months training course during the year.

199. The results for the Federal Medical Department in the examinations of the Nursing Council of Nigeria were:-

	Entered	Passed
Preliminary Examination	36	24
Final Examination	20	12
Midwives Grade 1	17	10

200. Pharmacists - 1958 was the last full year for instruction at the School of Pharmacy, Yaba, leading to the Chemist and Druggist Diploma. 32 qualified during the year. The instruction of student pharmacists will be taken over next year by the new Department of Pharmacy at the Nigeria College of Arts, Science and Technology at Ibadan; under the direction of Dr. J.M. Rowson with a highly qualified staff, in accommodation equipped to a standard judged second to none within the Commonwealth excepting the United Kingdom. Here examinations will be attended by two external examiners from the United Kingdom with the object in view of gaining parity with the equivalent examinations of the Pharmaceutical Society of Great Britain.

201. The buildings of the Yaba school will become a training school for Dispensing Assistants and include provision for a manufacturing laboratory.

202. Dental Technicians - 10 students completed the 3 years course of training at the School of Dental Technology, where 16 students in all, drawn from the Gambia, Ghana and Nigeria, received instruction during the year. The previous shortage of dental technicians in Nigeria has now largely been made good and more attention will be given to advanced training leading to the cadre of dental technologist.

203. Dental Hygienists - The new School of Dental Hygiene began teaching in January. Besides the necessary instruction in theory emphasis was placed on practical work. Seven students completed the 12 months course, all passed the first examination in December and have been posted to Regional duties to return later for advanced training.

204. X-ray Technicians - The School of Radiology with a capacity for 20 students, conducted preliminary and final courses during the year. 8 of the 9 students who sat passed the preliminary examination and 12 out of 13 passed the final examination.

205. Public Health Inspectors - A course in malaria control, conducted from 24th to 29th November by the Malaria Service, Yaba, was attended by 12 public health inspectors in training. One senior public health inspector underwent a three weeks course of training in entomology and malaria control.

206. Medical Laboratory Technicians - Ten student technicians underwent the routine six months preliminary training course in the first half of the year, five passed the qualifying examination.

207. A refresher course was held between August and November for 8 technicians taking the Intermediate examination of the Institute of Medical Laboratory Technology which was held in Lagos under the personal general supervision of Mr. R.J. Bromfield, Chairman of the Institute. Three technicians passed the examination.

208. Early in December a course on blood grouping and transfusion techniques was held for more senior technicians, in preparation for the early expansion of the transfusion service.

209. The new School of Medical Laboratory Technology opened by the Federal Minister of Health on 1st December will permit of a greatly enlarged training programme being undertaken, so that it is proposed that technicians will in future spend their first three years under the control of the school, with their time equally divided between the classroom and the several sections of The Pathology Service.

210. Miscellaneous Training Courses

(a) Nutrition - Short courses and lecture demonstrations were conducted by the Adviser on Nutrition at The Medical Auxiliaries Training School, Kaduna; for students at the Trade Centre, Bukuru; at the Agricultural Training School, Samara; for Domestic Science Teachers at Kaduna; Administrative Officers in training at the Institute for Administration, Zaria; and for a group of Medical Officers by arrangement with the Senior Specialist, Leprosy, Northern Region.

(b) Malaria - Four Royal Army Medical Corps hygiene assistants were given a series of lectures and practical training in laboratory work from 7th to 19th July.

CHAPTER XIV

THE FEDERAL MEDICAL LABORATORY SERVICES

A - GENERAL

211. The ever increasing requirements of the expanding medical services in Lagos and the growing complexity of specialised pathological investigations demanded of modern medicine, coupled with the extensive training programme necessary to build up the laboratory services inevitably resulted in a heavy day-to-day load of work throughout the year falling on the staff on duty. A further improvement in the staff situation and the purchase of items of modern equipment, which included a flame photometer, an automatic tissue processor and power packs and vertical tanks for paper electrophoresis, helped to redress the balance.

B - BACTERIOLOGICAL LABORATORY

212. Despite an increased volume of work there remained an ample reserve of facilities available to clinicians.

213. The epizootic of rabies resulted in the examination of a record number of 134 brains from the Lagos area alone, of which 2 human, 51 dog and 4 cat brains were found to be positive. There was an increased demand for the male toad pregnancy test, 21 per cent of which were positive. This low figure suggests a rather indiscriminate use of the test. The toads do not long survive captivity and can rarely be used more than once. During part of the year the supply of toads was restricted and on such occasions some detail of history accompanying the requests for this test would assist in determining the urgency in each case.

C - SMALLPOX VACCINE LABORATORY

214. Sheep from Northern Nigeria were again used during the season April-December. In all 1,062 sheep purchased from Kano and Zaria were used in smallpox vaccine production, 111 of which, due to death or condemnation, were unsuitable for harvesting after scarification. The crude pulp harvested represented some 13¼ million doses of vaccine. The issue of vaccine during the year was as follows:-

	Doses
Northern Nigeria ...	2,683,320
Western Nigeria and Lagos	2,711,760
Eastern Nigeria ...	1,674,560
Sierra Leone ...	166,440
Gambia ...	152,000
Other ...	42,540

This glycerinated phenolised lanolinated sheep lymph vaccine is issued in collapsible metal tubes, each containing 20 doses. The metal tubes are imported and, due to discontinued production of the tubes by the manufacturers, stocks sufficient for three years supply have been purchased.

215. Full scale production of dried smallpox vaccine will be undertaken when the new laboratory for this work is completed. This superior product will replace the lanolinated vaccine. Trials of the limited production of 272,225 doses of freeze dried vaccine were carried out in the Mamfe and Victoria areas of the Southern Cameroons to confirm previous work and to train public vaccinators in the use of this new vaccine. The previous excellent results were confirmed.

D - YELLOW FEVER VACCINE LABORATORY

216. Due to a rapid turn over of junior technical staff, some of the senior attendants are more proficient than junior technicians in certain of the mechanical repetitive operations. This anomaly, which tends to hamper the work of the laboratory, may be corrected by the readjustment of duties to free the technical staff of functions capable

of being carried out correctly by attendants with long service; and so permit technical staff to carry out duties more directly associated with their technical advancement.

217. The installation of an auxiliary 100 KVA generating plant, to protect against failure of the public electricity supply, was nearing completion by the end of the year.

218. The mouse colony, organised to permit of a rapid increase in production, if required, had another good year. Some 31,000 mice were issued for laboratory use.

219. Safety tests in accordance with The World Health Organisation's requirements, in rhesus monkeys, of a large batch of new seed vaccine, provided a supply sufficient for several years' production.

220. 17D mouse-brain scarification vaccine has been in regular production since August. A stock of this vaccine is being built up to provide for a scheme for the immunization of Lagos School Children during 1959. The issue of 2,400 doses brought near to completion the scheme for 100 per cent yellow fever immunization in the Nigerian Military Forces.

221. A trial in human volunteers of the combined smallpox yellow fever scratch vaccine, mentioned in the annual report for 1957, was carried out at the Southern Police College, Ikeja, during February. 43 recruits were vaccinated. The reaction to the smallpox component was satisfactory; only three persons, two of whom had been vaccinated less than one month previously, failed to show a positive reaction. The reaction to the yellow fever component was less encouraging; of the 31 shown to be unprotected prior to vaccination, only 20 (64.5%) became immune as a result of the vaccination. This figure compares unfavourably with that normally expected of yellow fever immunization alone, and leads to the conclusion that the use of the combined vaccine cannot, at this stage, be recommended. This does not, however, condemn the practice of simultaneous vaccination with the two agents at separate sites.

E - PATHOLOGY DEPARTMENT, LAGOS

222. The acquisition of new apparatus made it possible for the first time in Lagos to give a specific diagnosis in cases of haemoglobin C or haemoglobin SC disease and to distinguish sickle cell trait carriers from those with homozygous haemoglobin SS.

223. In the biochemical section techniques generally were brought up-to-date.

224. Requests for emergency blood grouping and cross matching after working hours increased and a heavy burden fell on the two technologists. The use of Low's papain (activated) technique for rhesus grouping and emergency cross matching helped considerably.

225. Coroners autopsies, as in past years, continued to provide very much routine work, amounting on occasions to 6 or 7 autopsies in one morning. This situation is due to the considerable numbers of persons dying in Lagos without a registered medical practitioner in attendance.

226. The construction of The School of Medical Laboratory Technology on the 3rd floor was completed and formally opened by the Hon. Minister on 1st December.

F - FORENSIC SCIENCE LABORATORY

227. General administration of the unit was the immediate charge of the Senior Specialist due to the absence on study leave of the Specialist Pathologist. The superintendent medical laboratory technologist had day-to-day charge of the scientific work of the unit which maintained a high standard in spite of an acute shortage of senior and junior technical staff.

228. Some 1,200 members of The Nigeria Police were given lectures and demonstrations, on specimen collection and transmission, motor accidents, and the scientific investigation of crime, with very encouraging results. 2,060 laboratory examinations were carried out during the year (1957 - 746) which included 701 for blood stains and 466 for seminal stains.

G - SUMMARY OF THE WORK OF THE FEDERAL LABORATORY SERVICE

229. The following table indicates the work done:-

	1957	1958
Bacteriology	9,443	12,005
Serology	28,763	33,494
Rabies diagnosis	132	235
Clinical Pathology:		
Bloods	16,243	30,091
Faeces	4,356	4,906
Urines	9,971	6,492
Smears	3,222	3,108
Sputum	2,305	4,225
Biochemistry	2,716	3,797
Leprosy Smears	274	187
Histopathology	3,222	4,084
Miscellaneous	265	298
Post-mortem examinations ...	968	1,051
Forensic Science examinations	746	1,074
Vaccine Production		
Smallpox	20,217,680 doses	13,239,240 doses
Rabies	307,000 ml.	384,000 ml.
Yellow fever	120,000 doses	-
TAB	9,636	-

H - FEDERAL MEDICAL LIBRARY

230. The cost of the proposed new library building at £18,600, involves a supplement of £8,600 to the sum originally voted. Until the new building is completed the lack of shelf space will seriously limit the acquisition of new books.

231. The Medical Librarian attended the 4th Annual Conference of the West African Library Association held at The University College, Achimota, Ghana, during March. The Assistant Library Officer returned in October from 26 months studies in librarianship at Loughborough, England.

232. There are now 242 titles on the standing order for serials. 588 volumes were accessioned during the year.

233. More readers used the library's services than previously, a trend that is likely to continue with the further expansion of medical facilities and staff in Nigeria. Requests for subject bibliographies and photo-copies of articles provided variety for the library staff.

CHAPTER XV

THE FEDERAL MALARIA SERVICE

234. Activity during the year was on a reduced scale due to the retirement of the Senior Specialist, the transfer of the Malariologist and the absence on leave of the Entomologist for part of the year.

235. Nevertheless a number of long term research projects on chemoprophylaxis and the fate of several insecticides on local building materials were concluded and will provide useful guidance in future field work.

236. Taxonomic research led to the description of four mosquitoes new to science, of which two are Anopheles.

237. Precontrol surveys were carried out in connection with a new malaria control project in Eastern Nigeria.

1 - RESEARCH ACTIVITIES

(a) Malaria control project in Western Sokoto

238. (i) Malariology:- Parasite rates indicate that transmission of malaria is more effectively reduced in areas treated throughout with D.D.T. or D.D.T. following B.H.C. than where D.D.T. has followed dieldrin. Limited continued transmission in the most successfully controlled areas has brought into prominence the role of the nomad Fulani as a source of infection.

239. (ii) Entomology:- It was established, as judged by the examination of window traps, that the mortality of A.gambiae entering sprayed huts is often not more than 20-30% in 24 hours.

240. (iii) Chemoprophylaxis:- Mass treatment with pyrimethamine/chloroquine of 10,000 persons at Argungu produced limited decreases only in crude parasite rates, and this measure has not attracted the popular demand made for D.D.T. residual spraying.

241. Following the retirement during the year of the Senior Spceialist (Malariologist) the scientific direction of this project has passed to the malaria unit of the Northern Region of Nigeria.

(b) TAXONOMY of Culicidae

242. Two Anopheles species new to science have been described, A.brucei from Lokoja and A.gilroyi from Itchi, a few miles to the west of Enugu. Two new Aedes species Ae.wendyae from Ikorodu and Ae. Lokojensis from Lokoja have been described.

243. A new fully illustrated key to the Anopheles of West Africa is in course of preparation.

(c) Mosquito colonies

244. Self-supporting colonies of A.funestus and A.melas were successfully maintained, the latter for the first time. Eggs of A.funestus were supplied to the Ross Institute, London, on two occasions.

(d) Insecticide resistance

245. A constant relationship was found between the restistance levels of adults and their corresponding larvae within the species tested, A.sundaicus, A.stephensi and several strains of A.gambiae. The technique used, which was developed at Yaba, has now been adopted at the Ross Institute, London, in French West Africa, India and elsewhere.

246. The study, on A.gambiae, of the spread of the hereditary factor for dieldrin resistance was continued. Observations on material from the Western Sokoto Pilot Project and Mass Campaign areas indicate that:-

Where B.H.C. only has been applied for $2\frac{1}{2}$ years, the population appeared to be homozygous for this factor, and also to possess an additional minor resistance factor specific for B.H.C.

Where dieldrin only had been used, or dieldrin followed by a short period with B.H.C. a mixed population was found, consisting of homozygous and heterozygous resistant material, with little indication of the presence of homozygous susceptible individuals.

Where B.H.C. had been used once or twice only, the process of replacement had not proceeded so far, and pure susceptible material was still present.

Where no insecticides had yet been used, a marked overspill of the resistance factor was seen to have already taken place, reaching at least 14 miles from the nearest sprayed area.

247. No sign of cross resistance to D.D.T. could be detected.

248. A project has been started to establish the relations between the two variables, exposure time and dosage, and the resultant mortality of mosquito larvae, several species of which are being used with a range of insecticides. Preliminary findings show that the heterogeneity of results appears to increase as exposure time increases, so that the sharpest and most easily evaluated results are obtained where exposure time is kept to a minimum.

(e) Chemical Studies on Insecticides

249. (i) Persistence of insecticides on mud surfaces:- Three series each of 8 blocks 12 x 18 x 2 inches, composed of red mud from Birnin **Kebbi**, grey mud from Argungu and brown mud from Yaba were sprayed with determined dosages of:-

75% D.D.T. wettable powder at 3.13 g/m^2 technical D.D.T.
50% gamma B.H.C. wettable powder at 0.41 g/m^2
50% dieldrin wettable powder at 0.48 g/m^2
50% dieldrin resin wettable powder at 0.5 g/m^2

The insecticidal activity of the blocks was estimated by bioassay using 2 days old sugar-fed *Aedes aegypti* females and the plastic cone method of Bruce-Chwatt (1957). The sorption rates of the insecticides were estimated by chemical means using the 'Fixol' gummed strip method. Intervals of $2\frac{1}{2}$ hours, 3,9,27,65 and 81 days obtained in both studies.

250. Results suggested that:-

While sorption of B.H.C. and dieldrin from an ordinary dispersible powder is virtually complete in a little over a week, sorption of D.D.T. decreases with time, and even after 81 days reaches only 75% of the original deposit. The dieldrin resin formulation behaved as if it contained about 88% of free dieldrin which is sorbed at once, and 12% of resin-bound dieldrin which remains on the surface.

The insecticidal activity of D.D.T. on all three types of mud remained high, killing 100% of the material at 5 minutes exposure. The activity of B.H.C. in all three series fell to a point where 10 minutes exposure gave 78-85% kill by 65 days. The activity of dieldrin fell away less rapidly than that of B.H.C., the resin formulation showing the slowest fall.

251. Full statistical analysis has not yet been applied, but the figures given are probably significant.

252. The results of this experiment are suggestive and indicate the great amount of work required to produce information on this subject.

253. (ii) Effect of change of relative humidity on the persistence of insecticides on mud:- Using bricks made from Yaba mud and the four insecticide formulations as in (i) above, it was determined that the sorption process proceeded much faster under dry conditions (50% relative humidity) except in the case of the dieldrin resin.

254. (iii) Relationship between the particle size of building muds and sorption:- Six different building muds from Nigeria and India were divided by sieving into four particle size fractions: below 66 microns, 66-104 microns, 104-251 microns, and 251-442 microns. Fractions above 66 microns were ground in a ball mill to pass the 66 microns sieve. The fractions were made into circular blocks (12 cm. diameter and 1.2 cm. thick) and dried out at 26-28°C and 50-54% relative humidity for 3 months. The blocks were sprayed on the constant speed conveyer belt with a 75% water-dispersible powder at a dosage of 1.38 mg/m^2 technical D.D.T. Five weeks after spraying the surfaces were bioassayed using the technique referred to at (i) above; 30 minutes exposure were given.

255. Results indicated that sorptive behaviour was not entirely due to the specific surface area of a mud. In the group of muds examined it appeared empirically that sorption of D.D.T. was associated with a high iron oxide and/or alumina content of the mud. For muds of low iron oxide content, the proportion of alumina must be considerably greater than that of the iron oxide; i.e. the sorptive "power" of iron oxide in a mud is greater than that of an equivalent amount of alumina.

256. Persistence of insecticides on thatch - The preliminary results of an experiment, using 'blocks' prepared from roofing mats used in Western Sokoto and the insecticide formulations and dosages referred to at (i) above, show that there is a considerable difference in the persistence of insecticide on thatch and mud-walls, the rate of loss being much greater from the thatch.

2 - SURVEY WORK

(a) Survey of Enugu-Ezike Malaria control project

257. A precontrol survey was undertaken in January by the Senior Specialist and Mosquito Control Officer. The finding of a parasite rate of 54% in infants under 3 months of age indicated a high transmission rate in the dry season. No significant variation in the parasite rate or density was found in a small group of sicklers. Entomological investigation indicated:-

(i) An average of 1 to 6 female Anopheles per room-day.
(ii) Anopheles breeding was virtually confined to man-made receptacles, principally domestic water-pots; there were about 10 pots per person of which 5% were breeding A. gambiae.
(iii) Although A. funestus was breeding near the project area no adults were found among the anopheles caught in the houses.

258. The project area was planned in 4 zones to provide larvicidal treatment only, two prophylactic regimens and a control area. Later a further zone was planned to accommodate a third prophylactic regimen.

259. Fortunately the whole area appeared to be malariometrically homogeneous.

260. The scheme proposed provided for the distribution, by 18 yaws scouts each responsible for 2,000 people, of dieldrin/sand/cement pellets as larvicide; the drug treatment zones comprised one of 10,000 and two each of 5,000 people, the drugs used to be pyrimethamine, combined pyrimethamine/chloroquine and chloroquine/primaquine.

(b) Survey of Kiri-Kiri, Apapa.

261. This survey, carried out in October, was called for on account of the new Federal Prison in this area. It was found that while the condition of drains and soakage pits was good, static water and tree holes provided potential breeding places.

262. In the surrounding swamp land the following species were found in the larval stage:-

A. obscurus
A. gambiae
A. hargreavesi
C. bitaeniorrhynchus
F. plumosa

and in adult stage the following species were caught:-

A. gambiae
T. africanus
Culex spp.
T. acrites

263. The nuisance complained of appeared to be due mainly to Taoniorrhynchus africanus, and the recommendations made include:-

Mosquito proofing of staff quarters.
D.D.T. spraying of prison cells.
Regular emptying of fire buckets and other containers.
Larvicide treatment of wells and swamp edges.

CHAPTER XVI

THE FEDERAL TUBERCULOSIS SERVICE

GENERAL ADMINISTRATIONS

264. The staff position reflected a general improvement apart from a shortage of X-ray and laboratory technicians.

265. An experienced public health medical officer joined the staff in April. After a period spent in assessment of the methods and organisation of the Tuberculosis Service this officer was instrumental in suggesting certain modifications which should prove of value.

266. The specialist surgeon, recently returned from post-graduate training in the United Kingdom, carried out thoracic surgery on 15 patients during the last quarter of the year, and assisted at clinics held every fortnight to discuss and select patients suitable for this type of treatment.

267. The introduction of a multi-section cassette for tomography reduced radiation hazard in the department.

268. The use of 100 mm X-ray film where suitable in place of full-size chest films allowed savings during the year estimated at the equivalent of two thirds of the total cost of the department's 100 mm Watson-Odelca camera.

CONTROL OF TUBERCULOSIS

269. Expenditure on the Tuberculosis Service was the equivalent of two shillings per head of population, which in turn represents approximately 3% of the cost of the Federal Medical Services. Within these financial limits the work of control of tuberculosis has centred on case finding, contact tracing, BCG vaccination, out-patient chemotherapy and research.

270. There was a fifty per cent increase in 35 mm fluorographs and a seventy five per cent increase in BCG vaccination over last year's figure.

271. Difficulty in the recruitment of tuberculosis visitors, following the raising of educational standards required of this cadre, coupled with emphasis on the follow-up of old cases and domiciliary treatment of children with active primary disease, led to a fall in the recorded total number of contacts examined and home visits to new cases.

272. Research at the Yaba Sanatorium indicated that continuance under out-patient treatment was related to the success of the treatment given, and that male out-patients generally respond much better than females. A possible explanation of this finding is that the male patient is in a much better position to heed the advice to rest at home. Further work indicated that more than half of all in-patients showing unsatisfactory response to treatment harboured an infection resistant to streptomycin and INAH. Steps are being taken to make further provision for tests to determine resistance to treatment.

HEALTH EDUCATION

273. In addition to the routine health education undertaken by staff members in the clinic and the patients homes, the Federal Information Service in the June 1958 number of its publication entitled "Federal Nigeria" presented a full-page illustrated article on "The fight against Tuberculosis in Lagos". While much credit must be accorded workers in this field for the improvement so far gained, much work remains to be done to remove the social stigma still attached to tuberculosis in Lagos.

SUMMARY OF WORK DONE

274. The following figures summarise the activities of The Service during the year:-

	1957	1958
New cases of tuberculosis	704	833
Chest X-ray	26,464	43,402
New patients at chest clinic	1,010	1,370
Total attendances	19,741	20,767
Contacts examined	6,052	5,528
In-patients admitted	166	141
Patients discharged from hospital	141	112
Persons tuberculin tested during BCG Campaign	25,900	23,346
BCG vaccination	8,128	14,225
Streptomycin injections (out-patients)	-	68,604

CHAPTER XVII

LEPROSY RESEARCH

A - GENERAL

275. Much work of value was accomplished at the Leprosy Research Unit, Uzuakoli, where the steady flow of highly cooperative patients provides the essential requirement for studies on the problems of chemotherapy and immunology.

276. During the period of Dr. Davey's absence on leave Dr. Hogerzeil, recently appointed to the Settlement, took charge of the Research Unit. After three years of devoted service of a high order Mr. Drewett, the Senior Laboratory Superintendent, left the Unit on transfer and was replaced by Mr. S. O'Neill.

277. Short courses of training were held for laboratory workers from other centres.

B - CHEMOTHERAPY

278. Trials of new anti-Leprosy drugs:- Further investigation of new drugs was pursued as follows:-

(i) Diphenyl thiourea compound S.U. 1906 (DPT,CIBA 1906):- The study of this compound is now in its late stages. Expanded trials, in which six other settlements cooperated and more than 200 patients have been treated, further confirm the freedom from toxicity of this preparation. Late results of treatment have modified to some extent the earlier uniformly promising findings. A few lepromatous cases showed an increase in bacterial index followed by clinical evidence of an exacerbation of the disease between the 36th and 39th month.

This work had lent further support to the favourable effect of DPT in patients developing hypersensitivity to sulphones or thiosemicarbazone, and in cases of neuritis.

DPT in combination with D.D.S in dosages of 2.0 gms. daily and 300 mg. twice weekly respectively continued to give gratifying results after two years of treatment.

Further work on DPT in combin ation with INH has indicated that INH does not reinforce the action of DPT, a conclusion which is supported by findings at other centres.

Trials are continuing of DPT in combination with these drugs to determine whether drug resistance will develop.

Much laboratory work on DPT is still needed, particularly in devising a method for its estimation in connection with studies of its absorption and excretion.

(ii) Diamino-diphenyl-sulphoxide (DDSO):- The pilot trial referred to in the 1957 Annual Report is now in its late stages.

After thirty eight months experience DDSO appears to be as active chemotherapeutically as DDS, but its toxic qualities rob it of any real advantage over DDS when given daily. Among a group of thirty-three patients, who have received a twice weekly dose rising to 300 mg. for periods of up to twenty one months, the only sign of possible toxicity has been one case of haematuria that arose in the twenty third month. Expanded trials in five other centres indicate that when given twice weekly progress has been as good as would have been expected with DDS.

The effectiveness of DDSO gives evidence that the sulphone radicle is not itself the fundamental structure in the activity of DDS. Unfortunately it has not been possible to study its absorption and excretion to see how closely these follow the pattern of DDS.

(iii) Diethyl-dithiol-isophthalate (ETIP or ETISUL):- The trial begun in 1957 was developed during 1958 and revealed some unusual features in the drug and presented some interesting problems.

Trials, carefully controlled by frequently repeated bacteriological test and biopsy, in which each week 6 ccs. of a preparation, well perfumed to overcome the intolerable odour of this drug, were given by inunction, revealed a powerful but short lived chemotherapeutic effect of about eight weeks duration, with a marked range of variation amongst the patients. Whatever the outcome, the cheapness and lack of toxicity of ETIP promise to give this drug a place in mass treatment as an adjunct to DDS, with some hope that the total period of treatment may thereby be reduced. Expansion of this investigation is underway.

279. Follow up of treated patients:- Between the years 1949 and 1957, 631 patients were discharged from the Unit. 80 per cent have been followed up for one year and 42 per cent for two years. The low relapse rate of 2.3 per cent was found in lepromatous cases, and a rather higher rate among tuberculoid cases, related only to patients who had had heavy infections with large numbers of macules. A relapse rate of 45 per cent in the borderline cases underlines the need for caution before considering such cases fit for discharge, a marked feature in the relapsed cases in this group being an increased degree of nerve involvement. In all groups puberty, lactation and malnutrition all appear to have had some relationship to the onset of relapse.

280. Analysis of relapse in relation to treatment showed a rate of 4 per cent following standard DDS treatment (408 cases), and a rate of 22 per cent following treatment with thiosemicarbazone (49 patients).

C - IMMUNOLOGY

281. The work of Kooij and Gerritson in 1956, on the obtaining of lepromin like skin reactions using testing material of a non-specific nature, was confirmed by the induction of mild reactions of the Mitsuda type using a suspension of normal skin. This work also demonstrated that the late reactions obtained with refined antigen, prepared by Lowe's method, were consistently less marked than those obtained with standard lepromin. The use of refined antigen as a routine has therefore been abandoned.

D - LABORATORY

282. The laboratory undertakes everything necessary for the proper cover of drug trials, immunology and diagnostic work. The cessation of field immunological work has led to a decrease in lepromin and tuberculin tests.

283. In the interests of accuracy and continuity, a single experienced technician has responsibility for the smearing of patients for M. leprae.

284. Shortage of staff continued to present difficulties. A start has been made on photomicrography.

285. Laboratory statistics show:-

	1957	1958
Lepromin tests	2941	154
Tuberculin tests	2959	55
Examination for M. leprae	2697	3171
Haematological specimens	3653	3722
Faeces specimens	1399	1210
Urine specimens	3699	3253
Sputum specimens	541	169
Kahn tests	228	184
Histological specimens	148	172
Biochemical examinations	246	137
Patients X-rayed	90	183

CHAPTER XVIII

NUTRITION RESEARCH

286. The Federal Nutrition Unit with its laboratory and offices at Kaduna under the able direction of the Senior Specialist, Dr. Bruce Nicol, O.B.E., T.D., pursued studies in various aspects of nutrition, a subject of much practical import in Nigeria with its rapidly expanding population. In addition the Senior Specialist gave much practical advice, guidance and encouragement to the Regional Nutrition Committees.

287. Some indication of the research work undertaken during the year follows:-

(i) Aetiology of atherosclerosis:- Work continued, in conjunction with the Nutrition Department of Harvard University, on the aetiology of atheroscelerosis.

Three groups of healthy adult Nigerian males, having basal diets of low fat content almost entirely of vegetable origin, and whose mean plasma cholesterol concentrations are low, are bring given dietary supplements of butter, palm oil or cotton seed oil for periods of at least two months. This work began in November, 1958. Plasma cholesterol levels are being followed. The three groups will be changed from one fat to another until all have partaken of each fat. To date findings are that in all groups the mean plasma cholesterols are low, approximately 120 mg/100 ml. with a range of 70-170 mg/100 ml. of plasma.

(ii) Groundnut flour:- This project, supported by a Rockefeller Grant, which was started in 1957 continued throughout the year. Work this year has shown that a Nigerian diet, based on rice, cassava and soup at a level of 25g protein intake daily, having an FAO score of 70, the intake being equivalent to approximately 0.45 g/kg. body weight, can support nitrogen equilibrum in adult Nigerian males. At this low level of protein intake it was possible to increase nitrogen retention by 0.6g per day by raising the score of a cassava and groundnut flour diet from 57 to 77 (FAO) by the addition of methionine. At higher levels of protein intake (45-70g), achieved by adding goundnut flour or dried skimmed milk to the basal rice diet, the nitrogen balance was affected by the amount of protein ingested, but the percentage of absorbed nitrogen retained in the body depended upon the dietary protein score.

(iii) School supplementary feeding experiment:- The basic school diet, a good one by African standards, supplied 3100 cals; 68g. protein (9g. animal), 56g. fat, 500 mg. calcium, 19 mg. iron, 24,000 i.u. Vitamin A, 1.8 mg. thiamine, 0.6 mg. riboflavine, 12.5 mg. nicotinic acid and 34 mg. ascorbic acid, with an F.A.O. protein score of 67.

Four groups of boys aged 13-18 years were given daily supplements of groundnut flour 50 g., cassava gari 54g. + vitamins, vitamins alone, or placebo tablets, during the nine months period October 1957 to June 1958 inclusive. Height, weight and subcutaneous fatness were measured monthly.

The boys averaged 55 Kgs. body weight midway in the experiment. The group receiving groundnut flour supplement had a daily protein intake of 1.73 g/Kg. body weight, and that receiving cassava as supplement an intake of 1.27 g/Kg. body weight.

There was no significant inter-group difference in the gains in height and weight recorded.

The actual intake of protein from the school diet was 1.25 g/Kg. per day, against the F.A.O. safe practical allowance of 1.78 g/Kg. Therefore the fact that the group given groundnut flour supplement did not grow better than the group given cassava ~~supplement is~~ surprising, unless the protein requirements have been set too high.

It is of interest to record that the large daily intake of 50g. groundnut flour, over a period of 9 months, did not cause any retardation of growth, some authorities having been adversely impressed by the imbalance of calcium and phosphorus, others by the low S. amino acid content of this foodstuff.

(iv) Protein malnutrition treated with groundnut flour/dried skimmed milk mixture:- To date 18 infants, from 6 to 18 months of age, suffering from protein malnutrition, detected at the Nutrition Clinic opened in Kaduna in conjunction with a Maternal and Child Health Centre, have been observed, and treated, over a maximum period of 3 months with a mixture of 25% Vom dried skimmed milk and 75% groundnut flour, to provide approximately 6g. of protein per Kg. body weight per day.

In all cases the protein malnutrition was associated with breast-milk failure and all were receiving starchy gruels and not much else additional to the small amounts of breast milk available.

The groundnut flour/skimmed mixture was given as a supplement to gruel and breast milk, in the form of a thin smooth gruel, which all infants took readily after one or two days.

It has been found that the mean growth curve, which in these cases had been static for one month or more, recovered the normal shape after one week of treatment. Attention was given to malaria, dysenteries and pulmonary disease during the period of one month's observation as well as subsequent to starting nutritional treatment.

The UNICEF plant at Vom is now producing dried skimmed milk much more cheaply than imported products, and when the Government Oil Mill at Zaria comes into production with groundnut flour (in 1959), it will be possible to treat all cases of protein malnutrition with a palatable, cheap and efficient Nigerian product.

(v) Nutritive value of Nigeria foodstuffs:- Investigation has indicated that approximately half the ascorbic acid content of yam and cassava tubers is destroyed by traditional cooking methods, and rather more in case of sweet potatoes when boiled "in their jackets". The very small ascorbic acid content of yam and cassava flour and cassava gari is completely destroyed during cooking.

(vi) Demographic data:- Data previously collected on reproduction, fertility and birth rates and infant and child mortality have been examined. Results indicate that the rural population of Nigeria is increasing at a rate of approximately 2% per annum, compared with 3% in urban areas, inspite of an infant mortality rate of 292 per 1000 and 1-4 years of age mortality rate of 97 per 1000.

Fertility and birth rates are both very high. While no clear cut relationship between food consumption and production was demonstrated, a tendency was noted for the net reproduction rate to be lower in areas where yams are the staple food than where sorghum and millet are the main source.

Previous studies on the energy and protein values of peasant diets indicate that at the present level of the Nigerian population, sufficient energy for an average day's work is available from the diets eaten. However, the availability of food will have to be increased parallel with the increasing numbers of the population.

CHAPTER XIX

INTERNATIONAL CONFERENCES

288. The following International Medical Conferences were attended during the year by the officers and at the places indicated below:-

Month	Conference	Place	Attended by
February	Fifth Meeting of the West African Council for Medical Research and Ninth Meeting of the Directors of British West African Medical Services.	Freetown	Sir Samuel L.A. Manuwa, Chief Medical Adviser to the Federal Government.
April	Annual Health Congress of the Royal Society of Health.	Eastbourne, England	Dr. S.L. Adesuyi
May	Eleventh World Health Assembly	Minneapolis U.S.A.	Sir Samuel L.A. Manuwa, Chief Medical Adviser to the Federal Government, Dr. S.E. Onwu, Eastern Region of Nigeria. Dr. A. Adeniyi-Jones, Western Region of Nigeria, Mr. A.M. Gerrard, Permanent Secretary, Federal Ministry of Health, Lagos.
July	Fifth Commonwealth Tuberculosis Conference	London	Dr. V.W. Hetreed
	Second African Conference of the International Union Against Tuberculosis	Paris	Dr. V.W. Hetreed
August	Central Council for Health Education Summer School	Chichester England	Dr. O Adeniyi-Jones.
September	International Conference on Tropical Diseases and Malaria	Lisbon	Sir Samuel L.A. Manuwa, Chief Medical Adviser to the Federal Government. Dr. R.A. Dikko.
	Eight Session of the W.H.O. Regional Committee for Africa	Monrovia	Dr. R.A. Dikko

CHAPTER XX

DISTINGUISHED VISITORS

289. The following Distinguished Visitors were received in Nigeria in connection with various aspects of the Federal Medical Services:-

Name	Status or Organisation represented
Monsieur M. Autret	United Nations Food and Agricultural Organisation, Rome.
Dr. J.C.R. Buchanan, C.M.G.	Deputy Chief Medical Officer, Colonial Office, London.
Dr. Karl Bode	Chief, Regional Organisation Staff (Africa-Europe), I.C.A. United States of America.
Dr. R. Bradfield	Agronomist, Cornell University, U.S.A.
Professor G. Bull	Professor of Medicine, Queens University, Belfast.
Monsieur. C. Cheysson	Secretary General, C.C.T.A., London.
Dr. Brock Chisholm, C.B.E., M.C.	President, World Federation of Mental Health.
Dr. C.K. Chu	Chief, Public Health Administration Division, W.H.O., Geneva.
Dr. R.L. Cooper	Chief, Food Conservation Division, UNICEF, Paris.
Miss L. Creelman	Chief, Nursing Section, W.H.O., Geneva
Professor T.H. Davey, O.B.E.	Liverpool School of Tropical Medicine.
Dr. M.A.C. Dowling	Malaria Adviser, W.H.O. Regional Office for Africa.
General Sir W.A. Drummond, K.B.E., C.B.	Director General, Army Medical Services, United Kingdom.
Dr. C.A. Egger	Director, UNICEF Office for Europe and Africa.
Miss S.M. Evans	Vice-Chairman, Council of Chartered Society of Physiotherapy.
Miss. B.N. Fawkes	Inspecting Officer, General Nursing Council for England and Wales.
Monsieur M. Ganzin	United Nations Food and Agriculture Organisation, Rome.
Mr. R. Greenhough	Public Information Division, UNICEF.
Dr. C.J. Hackett	V.D.T. Section, W.H.O., Geneva.
Dr. J.G. Harrar	Director of Agriculture, Rockefeller Foundation
Mr. J. Hesseltine	United Nations Food and Agriculture Organisation, Rome.
Sir H. Himsworth, K.C.B.	Secretary, Medical Research Council, London.

Name	Status or Organisation represented
Mr. D.W. Hudson	President, Pharmaceutical Society of Great Britain.
Dr. R.M. Janes	Sims Travelling Professor.
Dr. Bruce Johnson	Stanford University, California.
Professor R.M. Jones	Senior Professor of Surgery, Toronto.
Mr. K. Wilson-Jones	Administrative Secretary, Colonial Pesticide Research Committee.
Dr. E. Krapf	Chief, Mental Health Section, W.H.O., Geneva.
Dr. F. Kuhlow	Entomologist, W.H.O.
Dr. R. Lewthwaite, C.M.G., O.B.E.	Director, Colonial Medical Research, London.
Professor W.H. Linnell	Professor of Pharmaceutical Chemistry, London University.
Professor B.G. Maegraith	Liverpool School of Tropical Medicine
Professor A. Mair	Professor of Public Health and Social Medicine, St. Andrews University.
The Rt. Hon. Lord Milverton, G.C.M.G.	Formerly Governor of Nigeria.
Mr. M.P. Miracle	Stanford University, California, U.S.A.
Dr. J.W. Prieto	Director, School of Dermatology and Venereology, Madrid University.
Major A.M. Reeve	Liberian Institute of Tropical Medicine.
Dr. N.R. Reid	United Nations Food and Agriculture Organisation, Rome.
Mr. J.C. Satterthwaite	Assistant Secretary of State for African Affairs, Washington, U.S.A.
Professor D. Shilbeck	Principal, Wye College of Agriculture, England.
Mr. J.H. Smith, Jr.	Director, I.C.A., United States of America.
Dr. P. Swadon	Specialist Psychiatrist, Paris.
Dr. J.W. Weir	Department of Tropical Medicine, Rockefeller Foundation.
Professor A.W. Woodruff	Professor of Tropical Medicine, London University.

CHAPTER XXI

SCIENTIFIC PUBLICATIONS BY MEMBERS OF THE STAFF

290. Scientific papers, published or in print during 1958, of which members of the Federal Medical Services were authors or joint authors, are listed below:-

Author	Article
Bruce-Chwatt, L.J.	Parasite Density Index in Malaria. Trans. Roy. Soc. Trop. Med. & Hyg. 52.4.389 July 1958
Bruce-Chwatt, L.J. and Horn, D.W.	Antimalarial drugs in Nigeria. B.M.J. (In press)
Bruce-Chwatt, L.J. and Gibson, F.D.	Chloroquin per rectum for treatment of malaria in children. B.M.J. (In press)
Charles, L.J.	Comparative field trials of chloroquin and amodiaquine. Ann. Trop. Med. & Parasit. 52.1.55 March 1958.
Elliott, R.	A method for the investigation of susceptibility to insecticides in Anopheles larvae. Trans. Roy. Soc. Trop Med. & Hyg. 52.6.527 November 1958.
Elliott, R.	Insecticide resistance in some Anopheles larvae. W.H.O./Mal. 212
Elliott, R.	Insecticide resistance in populations of *A. gambiae* in West Africa. W.H.O./MAL.213
Elliott, R. and Ramakrishna, V.	Insecticide resistance in *Anopheles gambiae* in Western Sokoto. (In press)
Gibson, F.D.	Malaria parasite survey of some areas in the Southern Cameroons. W. Afr. Med. J. VILL.4.170 December 1958.
Majekodunmi, M.A.	Effects of malnutrition during pregnancy and lactation. W. Afr. Med. J. VII.1.30 March 1958.
Nicol, B.M.	Ascorbic Acid in the diets of rural Nigerian Peoples. W. Afr. Med. J. VII.4.185 December 1958.
Nicol, B.M.	Fertility and food in Northern Nigeria. W. Afr. Med. J. (In press)
Nicol, B.M.	The protein requirements of Nigerian peasant farmers. Br. J. of Nutr. (In press)
Nicol, B.M.	The calorie requirements of Nigerian peasant farmers. Br. J. of Nutr. (in press)
Okpala, I.	Transmission of *Plasmodium gallinaceum* through *Aedes stokesi*. W. Afr. Med. J. VII.4.195 December 1958.

Author	Article
Okpala I.	A new method of testing drugs in experimental schistosomiasis mansoni in golden hamsters (Cricetus auratus). W. Afr. Med. J. (In press)
Service, M.W.	A new *Anopheles* from the Southern Cameroons, *Anopheles buxtoni* sp. nov. Ann. Trop. Med. & Parasit. 52.176 July 1958.
Service, M.W.	The morphology of some new culicine larvae from the Southern Cameroons, together with notes on *Culex ingrami* and *Culex toroensis*. R. Ento. Soc. (In press)
Service, M.W.	A new Aedes Species, *Aedes (Aedimorphus) wendyae* sp. nov from S. Nigeria. R. Ent. Soc. (In press)
Service, M.W.	Mosquito survey of some areas in the Southern Cameroons under U.K. administration. W. Afr. Med. J. VII.4161 December 1958.
Service, M.W. and Oguamah, D.	Colonization of *Anopheles funestus*. Nature 181.4617. 1225 April 1958.

CHAPTER XXII

STATUTORY BOARDS

A - MEDICAL AND DENTAL REGISTRATION

291. The total numbers of registered medical practitioners and dentists in Nigeria as at 31st December, 1958, were 868 (1957 - 819) and 42 (1957 - 41) respectively.

292. The detailed distribution is as follows:-

(a) Medical Practitioners:

	Lagos	Northern Region	Western Region	Eastern Region	Southern Cameroons	Total
Government	95	110	102	62	10	379
Non-Government	57	90	240	80	22	489
Total	152	200	342	142	32	868

(b) Dentists:

	Lagos	Northern Region	Western Region	Eastern Region	Southern Cameroons	Total
Government	5	5	9	2	1	22
Non-Government	7	4	4	2	-	17
Total	12	9	13	4	1	39

B - THE NURSING COUNCIL FOR NIGERIA

293. The Council met in January and July and conducted two each of the statutory preliminary and final qualifying examinations for nurses during the year.

294. The following is a summary of the results:-

(1) Preliminary Examination

Training Schools	Pass	Failed	Referred	Total
Government	173	122	8	303
Missions	138	55	6	199
Native Administration	7	3	-	10
Private	16	5	-	21
Totals	334	185	14	533

(2) Final Examination

Training Schools	Pass	Failed	Referred	Total
Government	77	38	19	134
Missions	90	42	23	155
Native Administration	-	-	-	-
Private	12	6	-	18
Totals	179	86	42	307

295. Awards:- The Sir Kofo Abayomi Prize was not awarded in 1958 as no candidate obtained 75 per cent of marks in the final examination.

296. The Inspector-General of Medical Services Essay Prize was awarded to Mr. R. Carson of the Sudan Interior Mission Hospital, Egbe.

297. The Principal Matron's Gold Medal was awarded to Mrs. M. Agbor-Kemmer of the General Hospital, Lagos.

298. The total number of nurses on the Register of The Council at the end of the year was 5,114 (1957 - 4,780). During the year The Council registered the names of 132 nurses who held approved qualifications obtained outside Nigeria.

C - THE MIDWIVES BOARD FOR NIGERIA

299. The Board conducted two each of the statutory examinations for Grade I and Grade II midwives during the year. The following is a summary of the results:-

(1) Grade I Midwives Examination

Training Schools		Passed	Failed	Total
Government	....	33	19	52
Mission	....	38	17	55
		71	36	107

300. Government candidates gained 3 distinctions and 5 credits; Missions 2 distinctions and 6 credits. The Dr. A. Maja Prize was awarded to Miss Mmah E. Imaikop of the Queen Elizabeth Hospital, Umuahia who gained the highest marks above 75 per cent at the March, 1958, examination. The Prize was not awarded on the September examination result as no candidate achieved 75 per cent of marks.

(2) Grade II Midwives Examination

Training Schools		Passed	Failed	Total
Government	....	76	12	88
Missions	....	221	53	274
Native Administration or Local Government		14	9	23
Private	....	2	14	16
Totals	....	313	88	401

301. Government candidates gained 19 distinctions and 11 credits; Missions 42 distinctions and 32 credits; Native Administration 2 distinctions.

302. Prizes for the Grade II Midwives with top marks, subject to reaching 75 per cent in the several Regions, the Southern Cameroons and the Egba Maternity Centre, Abeokuta, were first awarded in 1957, on the results in the biannual examinations, by the Fund raised by public subscription to commemorate the late Miss Jane McCotter, C.B.E., O.St.J., a pioneer in domiciliary midwifery, who worked in Nigeria from 1909 to 1955.

303. Prize winners include:-

1957 (Too late to include in the 1957 Annual Report).

Miss Monica Umeh, St. Philomena's Hospital, Benin.

Miss Francisca Emodi, Sacred Heart Hospital, Abeokuta.

Miss Catherine Anwuri, C.M.S. Hospital, Iyi Enu, Onitsha.

Miss Ufoaki Ajiri, C.M.S. Hospital, Wusasa.

Miss Catherine Asch, C.M.S. Hospital, Wusasa.

1958

Miss Sarah N. Ihedigbo, Queen Elizabeth Hospital, Umuahia.

Miss Grace Opara, Maternity Hospital, Ilorin.

Miss Christiana Nyassa, St. Elizabeth's Maternity Hospital, Shisong, Southern Cameroons.

Miss Margaret Okolo, St. Camillus Hospital, Uromi.

304. During the year The Board registered the names of 18 Midwives who held approved qualifications obtained outside Nigeria. The total number of Midwives on the Board's Register at the end of the year was:-

Grade	I	-	197
Grade	II	-	420

D - THE PHARMACY BOARD

305. The Board, comprised of 15 members, held four ordinary meetings during the year. Business included the approval of the report of the Ethical Sub-committee and the recommendation that a copy of the report be supplied to each pharmacist on the Register.

306. At the close of the year The Board's register showed a gotal of 477 Chemists and Druggists; their distribution being as follows:-

Federal Territory of Lagos	-	167
Southern Cameroons	-	20
Northern Region	-	36
Western Region	-	108
Eastern Region	-	126
Absent from Nigeria	-	20

307. Thirty licensed Dispensers were on the register at the end of the year.

308. One hundred and eighty "Missionary Permits" to dispense drugs were issued.

309. One hundred and seventy-two applications were approved for the importation of industrial and laboratory chemicals.

310. Two hundred and sixteen business premises were registered for the sale of drugs.

311. A Pharmaceutical Inspector was appointed for the Federal Territory of Lagos, charged with the taking of all reasonable steps to enforce the provisions of Section 54 of the Pharmacy Ordinance, in addition to the routine inspection of pharmacies and drug stores and to perform the duties of the Licensing Authority. This new unit has made a promising start in the task of putting down unethical and criminal infringement of the Pharmacy and Dangerous Drugs Ordinance.

312. Details of the work accomplished are as follows:-

(a) Patent and Proprietory Medicines Vendor's Licenses issued:

Lagos Island	...	394
Apapa and Ebute Metta		104
Yaba	...	100
Total	...	598

(b) Licences to authorise the sale of poisons under Part IV of the Ordinance:

Lagos Island ...	98
Apapa and Ebute Metta	9
Yaba ...	3
Total ...	110

(c) All registered premises were inspected once a month, thus:

Lagos Island ...	33
Apapa and Ebute Metta	9
Yaba ...	13
Total ...	55

(d) Offences under the Pharmacy Ordinance:

Number of cases charged to Court	- 133
Number of convinctions	- 120

Ag. CHIEF MEDICAL ADVISER TO
THE FEDERAL GOVERNMENT.

FEDERAL MINISTRY OF HEALTH
BROAD STREET, LAGOS.
30TH NOVEMBER, 1959.

APPENDIX I

LEGISLATION - 1958

Title	Official Gazette Notification	Objects and Reasons
1. ORDINANCE		
The Medical Practitioners and Dentists (Amendment) Ordinance,	No. 29 of 1958 Gaz. No.59 of 28/8/58	The acceptance of the Diploma of the National Board of Medical Examiners of the United States of America under Sec.8 of the Ordinance
II. ORDERS		
First-Aid Boxes (Prescribed Standards) Order, 1958.	L.N. 188 of 1958 Gaz. No.78 of 13/11/58	Revises items of equipment to be held in first-aid boxes under the Factory Ordinance 1955 and subsequent Regulations.
III. REGULATIONS		
(i) Medical Laboratory Trainees Regulations, 1958.	L.N. 76 of 1958 Gaz. No.31 of 10/4/58	Permits the University College Hospital, Ibadan, to accept both Regional and Federal Government nominees as students of Medical Laboratory Technology.
(ii) Docks (Sanitary Accommodation) Regulations, 1958.	L.N. 187 of 1958 Gaz. No. 78 of 13/11/58	Prescribes the standards for Sanitary Conveniences to be provided.
(iii) Docks (Sanitary Accommodation) Regulations, 1958.	L.N. 202 of 1958 Gaz. No.82 of 11/12/58	Gives approval for the Regulations.

LEGISLATION - 1958 (CONTD.)

Title	Official Gazette Notification	Objects and Reasons
IV. NOTICES		
(i) Marriage (Appointment of Principal Registrar, Registrar etc.) Notices 1958	L.N. 69 of 1958 Gaz. No.28 of 1/4/58	Appoints the Permanent Secretary, Federal Ministry of Health, excercising supervision over the Medical Department in Lagos, as the Principal Registrar of Marriages.
(ii) The Marriage Licences (Delegation) Notice, 1958.	L.N. 68 of 1958 Gaz. No.28 of 1/4/58	Provides for the delegation of authority in the absence of the Principal Registrar.
V. RULES		
The Dogs (Lagos) Rules, 1958.	L.N. 154 of 1958 Gaz. No.64 of 18/9/58.	Restricts the movement of dogs due to an outbreak of rabies in the Federal Territory of Lagos.

APPENDIX II

HOSPITAL BEDS - 1958

Name and Location of Hospital	Name and Category of Beds						
	General	Obstetric	Tuberculosis	Infectious	Mental	Orthopaedic	Cots
1. General Hospital, Lagos.	292	-	-	-	-	-	55
2. Creek Hospital, Onikan, Lagos.	36	6	-	-	-	-	6
3. Royal Orthopaedic Hospital, Igbobi.	-	-	-	-	-	216	14
4. Infectious Diseases Hospital, Yaba.	-	-	-	186	-	-	6
5. Mental Hospital, Yaba	-	-	-	-	423*	-	-
6. Tuberculosis Sanatorium, Yaba.	-	-	52	-	-	-	7
7. Massey Street Maternity Hospital, Lagos.	-	76	-	-	-	-	-
Total	328	82	52	186	423	216	88

* Includes convalescent beds at Oshodi and temporary beds at Yaba.

Summary:

Total No. of Beds	1,287
Total No. of Cots	88
Population mid-1958	337,000
Bed-Population ratio	1 bed per 262 persons

SUMMARY OF DISEASES - EXPATRIATES - 1958

Disease Group.	Europeans									Non-European Expatriates								
	Inpatient						Out-patients			In-patients						Out-patients		
	Males		Females		Total		Males	Females	Total	Males		Females		Total		Males	Females	Total
	Cases	Deaths	Cases	Deaths	Cases	Deaths				Cases	Deaths	Cases	Deaths	Cases	Deaths			
Infective and Parasitic Diseases	54	1	24	-	78	1	232	144	376	6	-	1	-	7	-	17	10	27
Neoplastic Diseases	3	2	1	-	4	2	1	-	1	1	-	1	-	2	-	-	-	-
Nutritional, Endocrine and Blood Diseases	9	1	4	-	13	1	55	48	103	1	-	-	-	1	-	5	2	7
Mental Diseases	16	-	6	-	22	-	36	39	75	1	-	1	-	2	-	2	4	6
Diseases of Nervous System and Sense Organs	10	-	6	1	16	1	124	66	190	-	-	-	-	-	-	6	1	7
Disease of Heart and Circulatory System	12	1	4	-	16	1	60	34	94	-	-	-	-	-	-	2	-	2
Diseases of Respiratory System	42	-	28	-	70	-	139	86	225	6	-	1	1	7	1	9	5	14
Diseases of Digestive System	36	-	18	-	54	-	111	81	192	9	-	1	-	10	-	15	2	17
Diseases of Genito-urinary System	10	-	17	-	27	-	32	104	136	2	-	2	-	4	-	2	4	6
Diseases of Pregnancy and Childbirth	-	-	130	1	130	1	-	61	61	-	-	29	-	29	-	-	6	6
Diseases of Skin and Musculo-skeletal System	30	-	14	1	44	1	297	170	467	2	-	-	-	2	-	31	10	41
Congenital Malformations	1	1	-	-	1	1	-	1	1	-	-	-	-	-	-	-	-	-
Diseases Peculiar to Infancy	4	-	4	-	8	-	4	17	21	3	-	2	-	5	-	1	-	1
Ill-defined Diseases	61	2	33	-	94	2	626	391	1017	4	-	1	-	5	-	38	35	73
Accidents, Poisonings and Violence	48	4	10	-	58	4	79	34	113	2	-	3	-	5	-	-	-	8
	336	12	299	3	635	15	1796	1276	3072	37	-	42	1	79	1	136	79	215

APPENDIX IV.

SUMMARY OF DISEASES - AFRICANS 1958

Disease Group.	In-patients						Out-patients		
	Males		Females		Total		Males	Females	Total
	Cases	Deaths	Cases	Deaths	Cases	Deaths			
Infective and Parasitic Diseases	1093	113	937	146	2030	259	47213	26899	74112
Neoplastic Diseases	62	11	58	11	120	22	45	39	84
Nutritional, Endocrine and Blood Diseases	201	40	439	79	640	119	5787	4460	10247
Mental Diseases	203	4	102	11	305	15	89	31	120
Diseases of Nervous System and Sense Organs	348	18	286	27	634	45	19240	12293	31533
Diseases of Heart and Circulatory System	242	30	300	21	542	51	1406	843	2249
Diseases of Respiratory System	594	68	532	181	1126	249	22409	15595	38004
Diseases of Digestive System	991	119	542	142	1533	261	20902	14177	35079
Diseases of Genito-urinary System	132	5	365	6	497	11	759	3877	4636
Diseases of Pregnancy and Childbirth	-	-	12814	54	12814	54	-	469	469
Diseases of Skin and Musculo-skeletal System	462	3	258	4	270	7	52411	26782	79193
Congenital Malformation	5	1	20	2	25	3	20	15	35
Diseases Peculiar to Infancy	42	21	135	55	177	76	670	323	993
Ill-defined Diseases	212	16	187	39	399	55	14804	7549	22353
Accidents, Poisonings and Violence	835	29	402	21	1237	50	36875	17647	54522
	5422	477	17377	799	22799	1276	222630	130999	353629

RETURN OF DISEASES AND DEATHS, 1958 - ALL RACES

Intermediate List No.	Diseases	Inpatients						Outpatients		
		Males		Females		Total		Males	Females	Total
		Cases	Deaths	Cases	Deaths	Cases	Deaths			Both Sexes
	INFECTIVE & PARASITIC DISEASES.									
A1.0	Primary respiratory tuberculosis & hilar adenitis	4	-	6	1	10	1	158	168	326
A1.1	Respiratory tuberculosis, sputum positive minimal lesion	-	-	-	-	-	-	20	19	39
A1.2	Respiratory tuberculosis, sputum positive intermediate lesion.	14	-	3	-	17	-	79	34	113
A1.3	Respiratory tuberculosis, sputum positive gross lesion.	41	16	23	8	64	24	265	149	414
A1.4	Respiratory tuberculosis, sputum negative minimal lesion	6	-	1	1	7	1	140	32	172
A1.5	Respiratory tuberculosis, sputum negative intermediate lesion	13	-	7	2	20	2	71	28	99
A1.6	Respiratory tuberculosis, sputum negative gross lesion	15	3	10	1	25	4	63	44	107
A.7	Other, and unspecified respiratory tuberculosis.	9	1	3	-	12	1	84	47	131
A2.0	Tuberculosis of meninges and central nervous system	4	2	14	8	18	10	1	-	1
A3.0	Tuberculosis of intestines, peritoneum & mesenteric glands	5	-	6	1	11	1	6	-	6
A4.0	Tuberculosis of vertebral column.	1	-	-	-	1	-	22	13	35
A4.1	Tuberculosis of hip.	25	1	15	-	40	1	-	2	2
A4.2	Tuberculosis of knee.	-	-	-	-	-	-	-	-	-
A4.3	Tuberculosis of other & unspecified bones and joints	-	-	-	-	-	-	3	-	3
A5.0	Tuberculosis of skin and lupus.	13	-	3	-	16	-	-	-	-
A5.1	Tuberculous cervical adenitis	18	1	9	-	27	1	8	4	12
A5.2	Tuberculosis of eye	-	-	1	-	1	-	1	-	1
A5.3	Miliary tuberculosis.	-	-	4	-	4	-	2	4	6
A5.4	Tuberculosis, all forms.	79	14	44	12	123	26	10	6	16
A6.0	Congenital syphilis.	1	-	-	-	1	-	-	-	-
A7.0	Early syphilis, primary and secondary (venereal).	1	-	-	-	1	-	-	-	-
A8.0	Tabes dorsalis.	1	-	-	-	1	-	-	-	-
A9.0	General paralysis of insane	2	-	-	-	2	-	-	-	-

RETURN OF DISEASES AND DEATHS, 1958 - ALL RACES (CONTD.)

Intermediate List No.	Diseases	Inpatients						Outpatients		
		Males		Females		Total		Males	Females	Total
		Cases	Deaths	Cases	Deaths	Cases	Deaths			Both Sexes
	INFECTIVE & PARASITIC DISEASES.									
A10.0	All other syphilis (venereal)	1	-	1	-	2	-	100	16	116
A10.1	Endemic syphilis (non venereal).	1	-	-	-	1	-	1	-	1
A11.0	Acute gonorrhoea.	8	-	2	-	10	-	3198	49	3247
A11.1	Chronic gonococcal infection of genito-urinary system.	1	-	1	-	2	-	1	-	1
A11.2	Gonococcal infection of joint	5	-	1	-	6	-	168	62	230
A11.3	Gocococcal infection of eye	-	-	-	-	-	-	-	-	-
A11.4	Stricture of urethra & other late effects of gonococcal infection	149	10	20	4	169	14	107	-	107
A11.5	Other & unspecified gonococcal infection.	3	-	-	-	3	-	1212	127	1339
A12.0	Typhoid.	4	1	2	-	6	1	-	-	-
A13.0	Paratyphoid fever & other Salmonella infection	-	-	-	-	-	-	-	-	-
A14.0	Cholera	-	-	-	-	-	-	-	-	-
A15.0	Brucellosis (undulant fever)	-	-	-	-	-	-	-	-	-
A16.0	Bacillary dysentery.	17	-	32	-	49	-	38	22	60
A16.1	Amoebiasis.	10	-	6	-	16	-	7	3	10
A16.2	Other & unspecified forms of dysentery.	28	2	29	4	57	6	3629	2616	6245
A17.0	Scarlet fever	1	-	-	-	1	-	2	2	4
A18.0	Streptococcal sore throat.	-	-	-	-	-	-	1116	798	1914
A19.0	Erysipelas.	-	-	-	-	-	-	-	-	-
A20.0	Septicaemia and pyaemia	1	-	4	-	5	-	12	7	19
A21.0	Diphtheria	1	-	1	1	2	1	2	2	4
A22.0	Whooping cough	3	-	7	1	10	1	1510	1393	2903
A23.0	Meningococcal infections	7	2	9	4	16	6	-	-	-
A24.0	Plague	-	-	-	-	-	-	-	-	-
A25.0	Leprosy	-	-	-	-	-	-	55	15	70
A26.0	Tetanus	74	27	85	56	159	83	77	69	146
A27.0	Anthrax.	-	-	-	-	-	-	1	-	1

(Contd. on Page 70)

APPENDIX V CONTD.

Intermediate List No.	Diseases	Inpatients						Outpatients		
		Males		Females		Total		Male	Females	Total
		Cases	Deaths	Cases	Deaths	Cases	Deaths			Both Sexes
A28.0	Acute poliomyelitis	2	-	7	-	9	-	10	10	20
A29.0	Acute infectious encephalitis	4	-	5	4	9	4	2	-	2
A30.0	Late effects of acute poliomyelitis & aoute infectious encephalitis	3	-	1	-	4	-	2	1	3
A31.0	Smallpox	1	-	-	-	1	-	25	5	30
A32.0	Measles	12	1	11	1	23	2	129	111	240
A33.0	Yellow fever	-	-	-	-	-	-	-	-	-
A34.0	Infeotious hepatitis	101	7	30	5	131	12	30	5	35
A35.0	Rabies	4	3	-	-	4	3	5	7	12
A36.0	Louse-borne epidemic typhus	-	-	-	-	-	-	-	-	-
A36.1	Flea-borne epidemic typhus (murine)	-	-	-	-	-	-	-	-	-
A36.2	Tick-borne epidemic typhus	-	-	-	-	-	-	-	-	-
A36.3	Mite-borne typhus	-	-	-	-	-	-	-	-	-
A36.4	Other & unspecified typhus	-	-	-	-	-	-	-	-	-
A37.0	Viyax malaria (benign tertian)	7	-	3	-	10	-	320	168	488
A37.1	Malariae malaria (quartan)	1	-	-	-	1	-	-	-	-
A37.2	Falciparum malaria (malignant tertian)	3	-	2	-	5	-	1	1	2
A37.3	Black water fever	3	2	5	-	8	2	22	9	31
A37.4	Other & unspecified forms of malaria	248	19	415	28	663	47	18148	11017	29165
A38.0	Schistosomiasis, vesical (S. haematobium)	1	-	-	-	1	-	-	-	-
A38.1	Schistosomiasis, intestinal (S.mansoni)	1	-	-	-	1	-	1	-	1
A38.2	Other & unspecified schistosomiasis	8	-	-	-	8	-	8	-	8
A39.0	Hydatid disease	-	-	9	-	9	-	-	-	-
A40.0	Onchocerciasis	36	1	25	-	61	1	83	39	122
A40.1	Loiasis	-	-	-	-	-	-	2	1	3
A40.2	Filariasis (bancrofti)	-	-	1	-	1	-	6	3	9
A40.3	Other & unspecified filariasis	1	-	-	-	1	-	39	14	53

(Contd. on Page 71)

Intermediate List No.	Diseases	Inpatients						Outpatients		
		Males		Females		Total		Males	Females	Total
		Cases	Deaths	Cases	Deaths	Cases	Deaths			Both Sexes
A41.0	Ankylostomiasis	17	1	6	-	23	1	1	1	2
A42.0	Tape-worm & other cestode infections	7	-	9	-	16	-	35	22	57
A42.1	Ascariasis	6	-	6	1	12	1	9375	6399	15774
A42.2	Guinea-worm (dracontiasis)	4	-	2	-	6	-	140	104	244
A42.3	Other diseases due to helminth	44	-	19	-	63	-	91	113	204
A43.0	Lymphogranuloma venereum	2	-	-	-	2	-	1	-	1
A43.01	Granuloma inguinale, venereal	-	-	-	-	-	-	-	-	-
A43.02	Chancroid (soft sore)	2	-	-	-	2	-	38	-	38
A43.03	Other and unspecified venereal diseases	-	-	1	-	1	-	-	-	-
A43.04	Food poisoning (infection and intoxication)	19	-	24	3	43	3	1	-	1
A43.05	Relapsing Fever	-	-	-	-	-	-	1	-	1
A43.06	Leptospirosis icterohaemorrhagica (Weil's diseases	-	-	-	-	-	-	2	-	2
A43.07	Yaws	3	-	-	-	3	-	1734	722	2456
A43.08	Chickenpox	3	-	-	-	3	-	76	31	107
A43.09	Dengue	7	-	-	-	7	-	-	-	-
A43.10	Trachoma	-	-	4	-	4	-	668	243	911
A43.11	Sandfly fever	-	-	-	-	-	-	-	-	-
A43.12	Leishmaniasis	-	-	-	-	-	-	-	-	-
A43.13	Trypanosomiasis	-	-	-	-	-	-	-	-	-
A43.14	Dermatophytosis	-	-	-	-	-	-	-	-	-
A43.15	Scabies	23	-	17	-	40	-	3856	1982	5838
A43.16	All other infective & parasitic diseases	14	-	11	-	25	-	441	314	755
	NEOPLASITC DISEASES.									
A44.0	Malignant neoplasm of buccal cavity & pharynx	10	1	11	5	21	6	1	-	1
A45.0	Malignant neoplasm of esophagus	1	-	1	1	2	1	-	-	-
A46.0	Malignant neoplasm of stomach	8	3	3	1	11	4	-	-	-
A47.0	Malignant neoplasm of intestines, except rectum	1	-	-	-	1	-	-	-	-
A48.0	Malignant neoplasm of rectum	-	-	1	-	1	-	-	-	-

(Contd.) On Page 72

Intermediate List No.	Diseases	Inpatients						Outpatients		
		Males		Females		Total		Males	Females	Total
		Cases	Deaths	Cases	Deaths	Cases	Deaths			Both Sexes
A49.0	Malignant neoplasm of larynx	4	-	1	-	5	-	29	32	61
A50.0	Malignant neoplasm of trachea, bronchus & lung not specified as secondary	-	-	1	1	1	1	-	-	-
A51.0	Malignant neoplasm of breast.	-	-	4	-	4	-	-	-	-
A52.0	Malignant neoplasm of cervix uteri	-	-	5	-	5	-	-	-	-
A53.0	Malignant neoplasm of other & unspecified parts of uterus	2	-	1	-	3	-	-	-	-
A54.0	Malignant neoplasm of prostate	9	-	1	-	10	-	-	-	-
A55.0	Malignant neoplasm of skin	5	-	2	-	7	-	14	5	19
A56.0	Malignant neoplasm of bone and connective tissue	2	-	-	-	2	-	-	-	-
A57.0	Malignant neoplasm of all other & unspecified sites	5	3	2	-	7	3	-	-	-
A58.0	Leukaemia and aleukaemia	3	2	1	-	4	2	-	-	-
A59.0	Lymphosarcoma & other neoplasms of lymphatic & haematopoietic system	12	3	2	2	14	5	1	-	1
A60.0	Benign neoplasm of unspecified nature.	4	1	24	1	28	2	1	2	3
	NUTRITIONAL, ENDOCRINE & BLOOD DISEASES.									
A61.0	Non-toxic goitre	6	-	9	-	15	-	-	-	-
A62.0	Thyrotoxicosis with or without goitre.	2	-	10	-	12	-	-	4	4
A63.0	Diabetes mellitus	43	11	24	2	67	13	106	49	155
A64.0	Beriberi.	1	-	-	-	1	-	1	1	2
A64.1	Pellagra.	1	-	-	-	1	-	4	-	4
A64.2	Scurvy.	1	-	-	-	1	-	2	-	2
A64.3	Rickets	-	-	-	-	-	-	2	2	4
A64.4	Kwashiorkor.	1	-	10	2	11	2	8	6	14
A64.5	Other vitamin deficiency states	11	1	22	2	33	3	2674	1507	4181
A64.6	Malnutrition unqualified over 1 year of age	43	12	110	37	153	49	964	970	1934
A65.0	Pernicious & other hyperchromic anaemias.	3	2	1	1	4	3	8	7	15
A65.1	Iron deficiency anaemias (hypochromic)	-	-	-	-	-	-	16	4	20
A65.2	Other & unspecified anaemias.	60	14	228	30	288	44	1746	1722	3468

(Contd. on Page 73)

APPENDIX V CONTD.

Intermediate List No.	Diseases	Inpatients						Outpatients		
		Males		Females		Total		Males	Females	Total
		Cases	Deaths	Cases	Deaths	Cases	Deaths			Both Sexes
A66.0	Asthma	26	1	22	3	48	4	228	165	393
A66.1	All other allergic disorders, endocrine, metabolic & blood diseases.	13	-	7	2	20	2	88	73	161
	MENTAL DISEASES.									
A67.0	Psychoses.	195	4	95	11	290	15	8	-	8
A68.0	Psychoneuroses & disorders of personality	24	-	12	-	36	-	115	71	186
A69.0	Mental deficiency.	1	-	2	-	3	-	4	3	7
	DISEASES OF NERVOUS SYSTEM & SENSE ORGANS									
A70.0	Vascular lesions affecting central nervous system.	2	-	1	1	3	1	8	1	9
A71.0	Non-meningococcal meningitis.	8	4	12	5	20	9	-	1	1
A72.0	Multiple sclerosis.	-	-	2	-	2	-	-	-	-
A73.0	Epilepsy.	35	3	12	2	47	5	25	13	38
A74.0	Inflammatory diseases of the eye.	-	-	-	-	-	-	592	325	917
A75.0	Cataract.	54	-	46	1	100	1	533	373	906
A76.0	Glaucoma.	31	-	15	-	46	-	511	305	816
A77.0	Otitis externa.	6	-	4	-	10	-	716	486	1202
A77.1	Otitis media & mastoiditis.	57	1	40	1	97	2	1866	1178	3044
A77.2	Other inflammatory diseases of ear.	2	2	6	-	8	2	1770	977	2747
A78.0	Refractive error of eye.	-	-	1	-	1	-	2533	1376	3909
A78.1	All other diseases of eye.	105	-	103	-	208	-	8137	4841	12978
A78.2	All other diseases of the nervous system & sense organs.	58	8	50	18	108	26	2679	2484	5163
	DISEASES OF HEART & CIRCULATORY STSTEM.									
A79.0	Rheumatic fever	4	-	-	-	4	-	1	-	1
A80.0	Chronic rheumatic heart disease	1	-	2	-	3	-	-	-	-
A81.0	Arteriosclerotic & degenerative heart disease.	6	3	6	3	12	6	1	-	1
A82.0	Other diseases of heart	82	12	53	8	135	20	79	60	139

(Contd. on Page 74)

Intermediate List No.	Diseases	Inpatients						Outpatients		
		Males		Females		Total		Males	Females	Total
		Cases	Deaths	Cases	Deaths	Cases	Deaths			Both Sexes
A83.0	Hypertension with heart disease	9	2	9	5	18	7	11	11	22
A84.0	Hypertension without mention of heart.	62	9	200	3	262	12	160	76	236
A85.0	Disease of arteries.	4	-	-	-	4	-	4	-	4
A86.0	Other diseases of circulatory system.	86	4	34	2	120	6	1212	730	1942
	DISEASES OF RESPIRATORY SYSTEM.									
A87.0	Acute upper respiratory infections.	99	-	39	1	138	1	1848	1097	2945
A88.0	Influenza.	-	-	-	-		-	5	2	7
A89.0	Lebar pneumonia.	98	8	39	3	137	11	294	244	538
A90.0	Bronchopneumonia.	155	41	292	122	447	163	991	822	1813
A91.0	Primary Atypical, other & unspecified pneumonias.	129	5	53	45	182	50	987	893	1880
A92.0	Acute Bronchitis.	18	3	33	3	51	6	8705	5490	14195
A93.0	Bronchitis, chronic & unspecified.	29	1	16	2	45	3	8356	6263	14619
A94.0	Hypertrophy of tonsils & adenitis	58	3	56	1	114	4	370	350	720
A95.0	Empyema & abscess of lung	12	4	7	3	19	7	19	9	28
A96.0	Pleurisy.	21	2	19	2	40	4	236	108	344
A97.0	Pneumoconiosis	4	-	1	-	5	-	44	17	61
A97.1	All other respiratory diseases	19	1	6	-	25	1	702	391	1093
	DISEASES OF DIGESTIVE SYSTEM									
A98.0	Dental caries	6	-	7	-	13	-	928	354	1282
A98.1	Parodontal disease.	-	-	-	-	-	-	80	36	116
A98.2	All other diseases of teeth & supporting structure	1	-	-	-	1	-	854	495	1349
A99.0	Ulcer of stomach	27	4	9	-	36	4	41	15	56
A100.0	Ulcer of duodenum	60	5	9	1	69	6	15	6	21
A101.0	Gastritis & duodenitis	7	-	1	-	8	-	607	508	1115
A102.0	Appendicitis	89	5	29	5	118	10	2	-	2
A103.0	Hernia without intestinal obstruction	344	6	33	1	377	7	177	7	184

(Contd. on Page 75)

Intermediate List No.	Diseases	Inpatients						Outpatients		
		Males		Females		Total		Males	Females	Total
		Cases	Deaths	Cases	Deaths	Cases	Deaths			Both Sexes
A103.1	Hernia with intestinal obstruction	60	6	6	1	66	7	5	1	6
A103.2	Intestinal obstruction without mention of hernia	7	3	5	5	12	8	2	-	2
A104.0	Gastro-enteritis & colitis, between 4 weeks & years of age.	88	46	201	91	289	137	1959	1948	3907
A104.1	Gastor-enteritis & colitis, ages 2 years and over.	184	17	158	19	342	36	2887	1858	4745
A104.2	Chronic enteritis & ulcerative colitis.	7	-	3	-	10	-	1481	883	2364
A105.0	Cirrhosis of liver	42	12	10	7	52	19	44	22	66
A106.0	Cholelithiasis & cholecystitis.	4	-	1	-	5	-	-	-	-
A107.0	Other diseases of digestive system.	110	15	89	12	199	27	11946	8127	20073
	DISEASES OF GENITO-URINARY SYSTEM									
A108.0	Acute nephritis	4	2	4	-	8	2	19	2	21
A109.0	Chronic, other & unspecified nephritis	17	2	14	2	31	4	8	-	8
A110.0	Infection of kidney.	25	-	16	2	41	2	7	2	9
A111.0	Calculi of urinary system.	3	-	2	-	5	-	5	-	5
A112.0	Hyperplasia of prostate.	-	-	-	-	-	-	-	-	-
A113.0	Diseases of breast	1	-	3	-	4	-	-	303	303
A114.0	Hydrocele.	23	-	-	-	23	-	88	-	88
A114.1	Disorders of menstruation	-	-	42	-	42	-	-	724	724
A114.2	All other diseases of genito-urinary system.	71	1	303	2	374	3	666	2954	3620
	DISEASES OF PREGNANCY & CHILDBIRTH									
A115.0	Sepsis of pregnancy, childbirth & the puerperium	-	-	22	1	22	1	-	48	48
A116.0	Toxaemias of pregnancy & the puerperium	-	-	83	3	83	3	-	20	20
A117.0	Haemorrhage of pregnancy and childbirth	-	-	164	4	164	4	-	1	1
A118.0	Abortion without mention of sepsis or toxaemia	-	-	1021	2	1021	2	-	88	88
A119.0	Abortion with sepsis.	-	-	19	-	19	-		159	159
A120.0	Other complications of pregnancy, childbirth & the puerperium	-	-	1999	16	1999	16	-	197	197
A120.1	Delivery without complications.	-	-	9657	28	9657	28	-	21	21

(Contd. on Page 76)

Intermediate List No.	Diseases	Inpatients						Outpatients		
		Males		Females		Total		Males	Females	Total
		Cases	Deaths	Cases	Deaths	Cases	Deaths			Both Sexes
A120.2	Delivery with complications (including manipulative, instrumental or surgical)	-	-	8	1	8	1	-	2	2
	DISEASES OF SKIN & MUSCULO-SKELETAL SYSTEM.									
A121.0	Infections of skin and subcutaneous tissue	129	2	77	2	206	4	7765	4556	12321
A122.0	Arthritis & spondylitis	42	1	17	-	59	1	1647	918	2565
A123.0	Muscular rheumatism & rheumatism unspecified	57	-	25	-	82	-	7975	4781	12756
A124.0	Osteomyelitis & periostitis.	28	-	23	-	51	-	53	17	70
A125.0	Ankylosis & acquired musculo-skeletal deformities.	22	-	7	-	29	-	47	23	70
A126.0	Chronic ulcer of skin (including tropical ulcer)	56	-	32	3	88	3	23495	9678	33173
A126.1	All other diseases of skin.	144	-	80	-	224	-	10256	6440	16696
A126.2	All other diseases of musculo-skeletal system	16	-	11	-	27	-	1501	549	2050
	CONGENITAL MALFORMATIONS.									
A127.0	Spina bifida & meningocele	2	1	3	1	5	2	-	-	-
A128.0	Congenital malformations of circulatory system	-	-	-	-	-	-	2	2	4
A129.0	All other congenital malformations.	4	1	17	1	21	2	18	14	32
	DISEASES PECULIAR TO INFANCY.									
A130.0	Birth injuries	1	-	3	1	4	1	-	-	-
A131.0	Postnatal asphyxia & atelectasis	1	-	2	-	3	-	-	43	43
A132.0	Diarrhoea of newborn (under 4 weeks of age)	6	-	1	-	7	-	-	-	-
A132.1	Ophthalmia neonatorum (non-gonococcal)	-	-	-	-	-	-	562	231	193
A132.2	Other infections of newborn.	-	-	1	-	1	-	-	-	-
A133.0	Haemolytic diseases of newborn.	-	-	-	-	-	-	-	-	-
A134.0	Nutrional maladjustment, under 1 year of age.	13	6	45	12	58	18	2	6	8
A134.1	All other defined diseases of early infancy.	7	2	19	7	26	9	66	46	112
A135.0	Ill-defined diseases peculiar to early infancy & immaturity unqualified.	21	13	70	35	91	48	45	14	59

(Contd. on Page 77)

APPENDIX V CONTD.

Intermediate List No.	Diseases	Inpatients						Outpatients		
		Males		Females		Total		Males	Females	Total
		Cases	Deaths	Cases	Deaths	Cases	Deaths			Both Sexes
	ILL-DEFINED DISEASES.									
A136.0	Senility without mention of psychosis.	2	-	-	-	2	-	3	-	3
A137.0	Pyrexia of unknown origin.	26	1	21	2	47	3	396	229	625
A137.1	Observations without need for further medical care.	11	-	8	-	19	-	16	5	21
A137.2	All other ill-defined causes of morbidity	233	17	186	37	419	54	11354	6667	18021
A137.3	Medical examination without complaint.	1	-	1	-	2	-	3372	390	3762
A137.4	Prophylactic inoculation & vaccination.	4	-	1	-	5	-	310	177	487
A137.5	Antenatal examination & care.	-	-	4	-	4	-	-	502	502
A137.6	Follow-up examination for tuberculosis, not needing further medical care.	-	-	-	-	-	-	6	1	7
A137.7	Follow-up examination, other than tuberculosis.	-	-	-	-	-	-	11	4	15
AN CODE	ACCIDENTS, POISONINGS & VIOLENCE (NATURE OF INJURY)									
AN138.0	Fracture of skull	23	10	8	3	31	13	35	8	43
AN139.0	Fracture of spine & trunk.	106	4	31	1	137	5	859	503	1362
AN140 0	Fracture of limbs.	200	5	60	-	260	5	629	300	929
AN141.0	Discolation without fracture	39	-	13	-	52	-	189	91	280
AN142.0	Sprains and strains of joints & adjacent muscles.	21	-	6	-	27	-	2738	1227	3965
AN143.0	Head injury (excluding fracture).	92	3	56	5	148	8	15	6	21
AN144.0	Internal injury of chest, abdomen & pelvis	6	2	2	-	8	2	4	5	9
AN145.0	Laceration & open wounds.	118	1	39	-	157	1	14237	7104	21341
AN146.0	Superficial injury, contusion & crushing with intact skin surface.	189	-	85	-	274	-	7992	4160	12152
AN147.0	Effects of foreign body entering eye & adnexa.	-	-	-	-	-	-	246	81	327
AN147.1	Effects of foreign body entering other orifice	10	-	19	1	29	1	46	19	65
AN148.0	Burns.	48	4	77	9	125	13	754	358	1112
AN149.0	Effects of poisons.	24	3	16	2	40	5	4	3	7
AN150.0	All other unspecified effects of external causes.	9	1	3	-	12	1	9214	3816	13030
	GRAND TOTAL	5795	489	17718	813	23513	1292	224562	132354	356916

APPENDIX V CONTD.

Intermediate List No.	Diseases	Inpatients						Outpatients		
		Males		Females		Total		Males	Females	Total
		Cases	Deaths	Cases	Deaths	Cases	Deaths			Both Sexes
AE CODE	EXTERNAL CAUSE OF INJURY.									
AE138.0	Motor vehicle accidents.	340	14	116	-	456	14	923	560	1483
AE139.0	Other transport accidents.	105	2	33	1	138	3	565	227	792
AE140.0	Accidental poisoning	21	-	11	-	32	-	16	5	21
AE141.0	Accidental falls.	74	-	37	-	111	-	1231	593	1824
AE142.0	Accidents caused by machinery.	41	-	2	-	43	-	41	4	45
AE143.0	Accidents caused by fire & explosion of combustible material	35	1	43	-	78	1	49	35	84
AE144.0	Accidents caused by hot substance, corrosive liquid, steam & radiation.	21	1	27	-	48	1	340	171	511
AE145.0	Accidents caused by firearm.	12	-	4	-	16	-	3	2	5
AE146.0	Accidental drowning & submersion.	31	-	6	-	37	-	-	-	-
AE147.0	Foreign body entering eye & adnexa.	1	-	-	-	1	-	302	93	395
AE147.1	Foreign body entering other orifice.	7	-	16	-	23	-	25	22	47
AE147.2	Lack of care of infants under 1 year of age.	-	-	-	-	-	-	-	-	-
AE147.3	Accidents caused by bites & stings of venomous animals & insects	2	-	-	-	2	-	169	101	270
AE147.4	Other accidents caused by animals	-	-	1	-	1	-	174	66	240
AE147.5	All other accidental acuses.	165	11	105	20	270	31	28447	12606	41053
AE148.0	Suicide & self inflicted injury.	10	-	2	-	12	-	-	-	-
AE149.0	Homicide & injury purposely inflicted by other persons (not in war).	20	4	12	-	32	4	4676	3196	7872
AE150.0	Injury resulting from operation or of war & civil insurrection.	-	-	-	-	-	-	1	-	1
	TOTAL	885	33	415	21	1300	54	36962	17681	54643

VITAL STATISTICS - LAGOS

BIRTHS, DEATHS, AND PRINCIPAL CAUSES OF DEATH

1960

(With 1959 figures for Comparison)

	1959	1960
Estimated Population	350,000	364,000
Livebirths	19,794	21,904
Deaths	4,801	4,294
Deaths under 1 year of age	1,508	1,377
Crude Birth Rate (per 1000 Population)	56.5	60.2
Crude Death Rate (per 1000 Population)	13.7	11.8
Infant Mortality Rate (per 1000 Livebirths) ...	76.2	62.9

Principal Causes of Death

Cause of Death	1959		1960	
	No. of Deaths	% of all Deaths	No. of Deaths	% of all Deaths
All Causes	4801	100	4294	100
1. Pneumonia & Bronchitis (B31,32)	1073	22.4	717	16.7
2. Malaria (B16)	644	13.4	433	10.1
3. Dysentery & Diarrhoea (B6,36)	427	8.9	434	10.1
4. (Prematurity & Other Diseases of early infancy (B44)	260	5.4	313	7.3
(Birth Injuries and Neonatal Asphyxia (B42)	155	3.2	154	3.6
5. Diseases of Heart & Blood Vessels (B22,24 - 29)	225	4.7	232	5.4
of which:- Vascular C.N.S. Lesions (B22)	(108)	(2.3)	(101)	(2.4)
Hypertension (B28,29)	(63)	(1.3)	(49)	(1.1)
Heart Dieases (B24 - 27)	(54)	(1.1)	(82)	(1.9)
6. Tuberculosis (B1,2)	113	2.4	122	2.8
7. Tetanus (A26.0)	81	1.7	107	2.5
8. Motor Accidnets (BE 47)	69	1.4	86	2.0
9. Maternity Causes (B 40)	91	1.9	76	1.8
10. Neoplasms (B18,19)	71	1.5	75	1.8
of Which :- Malignant (B18)	(21)	(0.4)	(25)	(0.6)
Non - Malignant (B19)	(50)	(1.1)	(50)	(1.2)
11. Meningitis (B10,25)	46	1.0	65	1.5
of which :- Meningococcal (B10)	(1)		(2)	
Non - meningococcal (B25)	(45)		(63)	
12. Malnutrition & Avitaminosis (A64.0 - 64.6)	73	1.5	61	1.4
13. Anaemias (B21)	50	1.1	61	1.4
14. Infective Hepatitis	12	0.25	54	1.3
15. Nephritis & Nephrosis (B38)	38	0.8	42	1.0
16. Cirrhosis of liver (B37)	36	0.8	41	1.0
17. Measles (B14)	76	1.6	40	0.9
18. Intestinal Obstruction & Hernia (B35)	23	0.5	40	0.9
19. Senility, ill-defined & Unknown Causes (B45)	634	13.2	627	14.6
20. All other Causes	704	14.7	514	12.0

FEDERATION OF NIGERIA

REPORTED CASES AND DEATHS FROM NOTIFIABLE DISEASES

1959, 1960 and 1961

DISEASE.	1959		1960		1961	
	Cases	Deaths	Cases	Deaths	Cases	Deaths
A. Plague	-	-	-	-	-	-
Cholera	-	-	-	-	-	-
Yellow Fever	-	-	-	-	1^{S}	1
Smallpox	1562	212	4078	377	3611	349
Pyphus	3	-	-	-	1	-
Relapsing Fever	1	-	5	-	-	-
B. Cerebrospinal Meningitis	2573	273	34783	2539	13492	[illegible]80
Influenza	2619	-	1328	2	974	5
Poliomyelitis (Acute)	101	7	144	4	156	6
Tuberculosis	9874	274	10723	304	10793	313
Sleeping Sickness	1105	1	3705	-	2637	-
Chickenpox	7004	6	15712	15	14399	9
Diphtheria	3	-	18	2	11	4
Dysentery	41448	239	45921	220	57200	229
Pneumonia	15528	1368	16504	1216	18442	1359
Typhoid & Paratyphoid	259	11	211	12	450	27
C. Anthrax					13	2
Measles					26093	402
Rabies (Human)					30	15
Tetanus					1066	310
Whooping Cough					9485	43
Leprosy X						

Notes :

A - Quarantinable Diseases under the International Sanitary Regulations

B - Uniformly notifiable in all Regions of Nigeria prior to 1960

C - Made uniformly notifiable in all Regions by The Public Health (Declaration of Infectious Diseases) Notice of December 1, 1960.

S = Suspected Cases

X Leprosy - Though on the list of notifiable diseases, in practice it is not regularly notified.

FEDERAL MINISTRY OF HEALTH STATS 21/

FEDERAL TERRITORY OF LAGOS
DEATHS BY AGE AND SEX
1960

Age-group (Years)	Deaths			Proportional Mortality - Both Sexes (Per cent)
	Males	Females	Both Sexes	
All Ages	2347	1947	4294	100
Under 1	773	604	1377	32.1
1 - 4	488	472	960	22.4
5 - 9	63	64	127	3.0
10 - 14	50	31	81	1.9
15 - 19	67	34	101	2.3
20 - 24	66	81	147	3.4
25 - 34	185	130	315	7.3
35 - 44	175	73	248	5.8
45 - 54	152	82	234	5.4
55 - 64	103	69	172	4.0
65 - 74	107	79	186	4.3
75 & over	118	228	346	8.1

FEDERAL MINISTRY OF HEALTH STATS 6/32

MINISTRY OF HEALTH
LIBRARY
LIBY. 15